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ROTUNDA

the magazine of the Royal Ontario Museum

BLACK SHIPS AND BARBARIANS

USING BUGS TO SOLVE CRIMES

ROBERT BARCLAY'S HONOUR IN ERROR

THE TOUGH FIBRE OF BALI

GLIMPSES OF THE ROM'S OUTDOOR CANADA FUND (THE SPORTSMEN'S SHOWS) GALLERY OF BIRDS

F. M. Bell-Smith, R.C.A.
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EDITOR'S NOTE

ABOUT 15 YEARS AGO, I travelled to Fontainebleau Palace outside Paris with several friends. Although my friends were looking forward to touring the building, I had visited it before and decided to wander through the gardens instead. This was about the time that relations were thawing between China and the West, and there, just outside the fabled palace at the entrance to the gardens, was a delegation of men and women from China, Mao jackets and all. The splendours of Fontainebleau faded into the background as everyone began to stare at the Chinese, as if they were visitors from outer space.

In the mid-nineteenth century Americans and Europeans visiting Japan, just as that country was emerging from 200 years of self-imposed isolation, caused a similar reaction among the Japanese on a much grander scale. The Japanese referred to the American ships, which brought foreigners to their land, as *kurofune* or black ships. Catherine Pagani, a ROM research associate in the Far Eastern Department, and John Summers, assistant curator of the Marine Museum of Upper Canada, write about the wood-block print trade that flourished in Japan at that time. Although fascinated by the foreigners, most Japanese could not get a first-hand look at them, so they bought prints about the foreigners to keep themselves informed.

Historically, Bali was isolated from most of the world by its location rather than by any expressed wish of its people. Air travel has changed this and many foreigners now fear that the legendary culture of this small tropical paradise will be smothered by Western culture. Barbara Stephen, a curator in the ROM's Far Eastern Department, had her fears allayed during a visit to Bali last June. Not unlike the Japanese, the Balinese are fascinated by the West, but the tough social and spiritual fibre of their society keeps their own culture very much intact.

What could be a greater contrast to the idyllic image of Bali than a forensic investigation using insects found on a corpse to establish the exact time and place of death? Pat McKeown, a Toronto journalist, has skillfully described one of the more fascinating albeit ghastly new Museum projects: a collaboration of the Entomology Department with the Metropolitan Toronto Police to establish a forensic entomology unit.

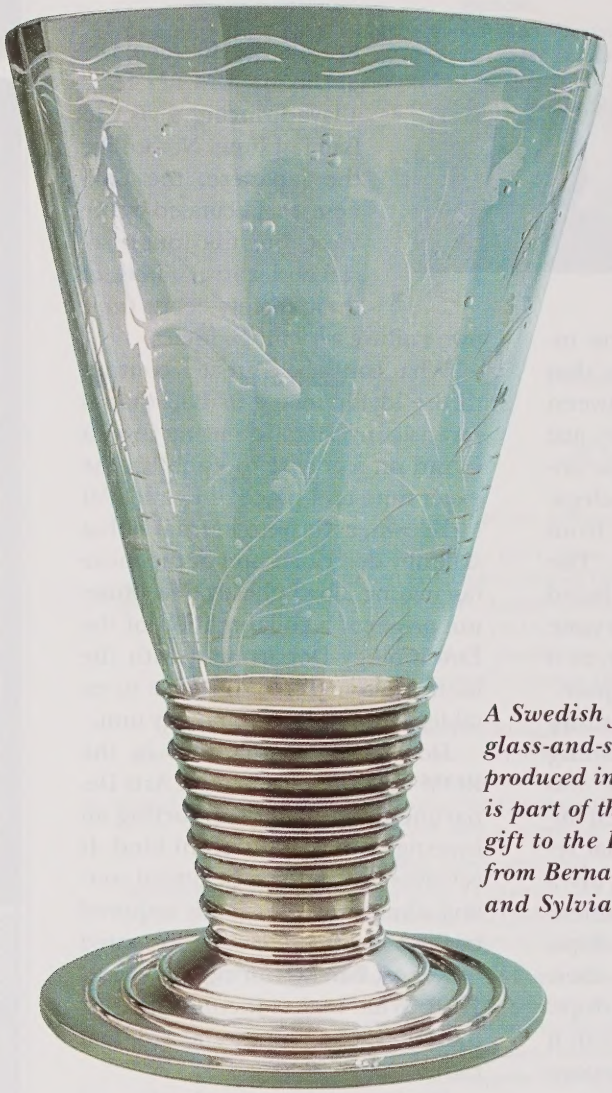
Don Webster, a curator in the ROM Canadian Decorative Arts Department, has been conducting an investigation of a different kind. It revolves around two beautiful sterling silver tureens, recently acquired by the Museum, that were presented to Robert Barclay during the War of 1812. What makes them unusual is that they commemorate a defeat rather than a victory.

I've been doing some sleuthing of my own. The Outdoor Canada Fund (The Sportsmen's Shows) Gallery of Birds is one of the most innovative natural science displays I have ever visited. And because of the vast assortment of birds included, it is also one of the most thrilling to see. Photographer Edward Gajdel has done a superb job creating the visual complement to my article, which not only takes you on a tour of the gallery, but offers some tips for visits.

Enjoy your wanderings through this issue of *Rotunda* and remember that spring is just around the corner.

Sandra Shaul

SANDRA SHAUL



A Swedish Jensen glass-and-silver vase, produced in the 1920s, is part of the generous gift to the ROM from Bernard and Sylvia Ostry.

Ostry Gift Makes ROM Decorative Arts Collection Best in Canada

Collecting twentieth-century decorative arts has long been a priority of the Royal Ontario Museum's European Department. A major focus has been Art Nouveau and Art Deco objects, which since the 1960s have attracted the interest of both scholars and the general public. With the gift to the Museum from Bernard and Sylvia Ostry of more than 300 examples of Art Nouveau, Art Deco, and English Arts & Crafts objects from France, Britain, Scandinavia, and the United States, the ROM now has the best collection in Canada of high-style Western decorative arts dating from 1900 to 1940.

The Ostry collection comprises furniture, silver, glass, ceramics, electric lighting fixtures, pewter, and metalwork. The furniture includes examples of English Arts & Crafts, French Art Nouveau from the two leading firms of Émile Galle and Louis Majorelle, Austrian bentwood designed or influenced by Josef Hoffmann (1870-1956) and the Wiener Werkstatte, and elegant Art Deco representative of the work of Émile-Jacques Ruhlmann, Jules Leleu, Porteneuve, and Léon Jallot. As a group, the French Art Deco pieces make it possible to study the range of traditional cabinet-making techniques found in fine French furniture.

The silver is equally impressive. Among the earlier objects are nine pieces of Cymric silver by Liberty & Company, the London emporium that exemplified the English Arts & Crafts/Art Nouveau tastes. There are also numerous related pieces such as a strikingly simple kettle on a stand designed by W. A. S. Benson, a much admired designer who brought the ideals of William Morris to bear on turn-of-the-century English design. Art Deco is also well represented. A large silver jug with rosewood handle by the Parisian silversmith Jean Puiforcat and a sim-

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Chinoiserie

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Christie's is pleased to support a new Decorative Arts Institute, established by the Royal Ontario Museum, The George R. Gardiner Museum of Ceramic Art and the University of Toronto School of Continuing Studies. The Institute will provide an opportunity for serious study of themes and topics relating to the decorative arts.

The inaugural symposium, "Chinoiserie: The Inter-Relationship of the Decorative Arts" will be held in Toronto from May 21–June 1, 1991. An international group of specialists and resident curators will explore oriental influence in 18th Century decorative arts, architecture and gardens.

For further information on the Symposium, or on buying and selling European decorative arts at auction, please contact Christie's, 170 Bloor Street West, Suite 210, Toronto, Ontario M5S 1T9. Telephone: (416) 960-2063.

An important German Baroque painted canvas 12-panel screen, c. 1720, Dresden (detail). Sold at Christie's New York, November 1, 1990 for U.S. $396,000.

CHRISTIE'S

pler jug designed by Louis Sue for Christofle & Company are masterpieces of the 1920s. Although English Art Deco silver is comparatively scarce in museum collections, the Ostry gift contains a good range of examples, many of them mounted with ivory, which was readily available and reasonably priced when the pieces were made. Rounding out the holdings are seven examples of Swedish and Danish silver as well as occasional pieces from other countries. Grouped with the previous Museum holdings, the twentieth-century silver collection is arguably the best in North America.

Electric lighting offered exciting opportunities for design in the early twentieth century. Outstanding among the five ceiling fixtures and 10 lamps in the Ostry collection is a wrought iron, bronze, marble, and glass lamp by the 1920s designer Paul Kiss. The pewter in the collection is mostly Liberty's Tudric line, and with the glass, ceramics, and other metalwork from the donation it enhances the Museum's previous holdings.

The Ostry collection will play a prominent role in the south wing of the Samuel European Galleries when it opens in the 1990s. It also serves as an excellent research and teaching resource for the European Department.

A representative selection of the finest pieces in the Ostry collection are on display in the Feature Exhibition Gallery of the Samuel European Galleries of the Royal Ontario Museum until 27 May 1991. The collection ranks among the most important gifts to the Museum in recent years. The Museum is extremely grateful for the generosity of Bernard Ostry, chairman and chief executive officer of TVOntario, and Dr. Sylvia Ostry, chairman of the Centre for International Studies at the University of Toronto.

PETER KAELLGREN
Peter Kaellgren is assistant curator in charge of the European Department, Royal Ontario Museum

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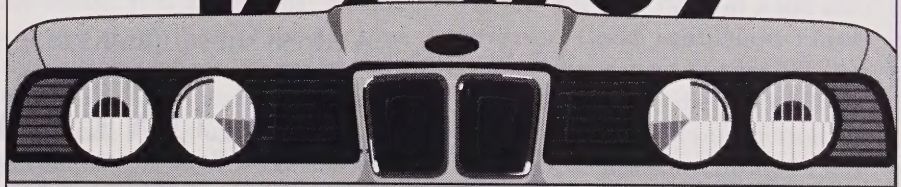

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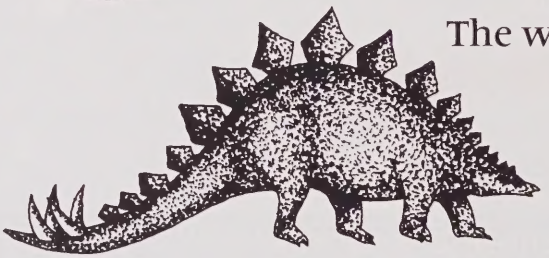

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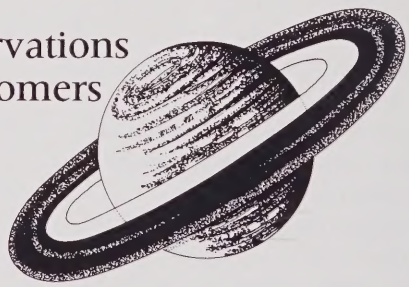

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Grapes for Vin Santo are left to shrivel on the vine at Pomino, Italy.

Holy Wine

WHAT IS THE MOST TRADITIONAL and popular wine in Italy? Many people outside the country would answer Chianti. However, in central Italy the wine most beloved as an integral part of hospitality and family celebrations is Vin Santo. For many hundreds of years "holy wine" has been produced with great dedication by every farm family, a practice that has led to an amazing variety of styles. According to Paolo de Marchi, one of the up-and-coming young Tuscan winemakers, "If you had 20 Tuscans discussing the production of Vin Santo, no one would agree with the other." However, steps are being taken by a Chianti Classico consortium to promote this unique dessert wine and to develop standards of quality that will lead to further recognition outside the towns and villages of Italy.

Vin Santo was the name given to the priests' wine made by the inhabitants of Umbria, and relates to its counterpart in France known as *le vin du curé*. The name also relates to the old Umbrian custom of racking off the wine at Easter during Holy Week, and its divinity has been further enhanced by its close association with religious rites and the celebration of such religious ceremonies as christenings and confirmations. Traditionally, Vin Santo is a deep amber colour with a floral, smoky fragrance; on the palate it is soft, smooth, nutty, sherrylike, and sweet, although some dry versions are made. It is a wine that can be enjoyed at any hour of the day, and the usual accompaniment is a plate of small, hard, nutty cookies called *cantuccini* that you dip into your glass. Of course, this makes for a crumby-looking wine and it is certainly permissible to keep the two specialities separated until natural processes force togetherness.

Vin Santo achieves its special character through some rather particular production procedures. Traditionally, it was made from grapes semi-dried by hanging them from the beams of farm kitchens, where they picked up a smoky aroma. They were then pressed and fermented into wine between Christmas and Easter. Today the grapes (grechetto in Umbria, malvasia, trebbiano, and others in Tuscany) are either left to shrivel on the vine or are dried on racks in a loft after harvest. Good ventilation is very important as it accelerates dehydration and reduces the probability of rot. During the drying period the sugar becomes concentrated as the

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liquid evaporates, and an enticing sweet aroma permeates the air of the loft hinting at further enjoyable sensations.

When the grapes are completely dried, usually around the first part of February, they are pressed. The must, which is very high in sugar content, is placed in small wooden casks called *caratelli* to ferment. A "mother," a thick black sludge that consists of the lees from previous batches, is added to provide yeast and nutrients that give life and complexity to the wine.

Variations in style are due mostly to differences in the length of the ageing period and to whether the casks are stoppered or are left unsealed to allow oxidation. Traditionally, the casks of wine are subject to all seasonal and temperature changes that take place in an attic *vinsantaia,* but here again ideas are changing. Some producers now prefer cool cellar temperatures for the whole ageing process and some, such as Paolo de Marchi of Isole e Olena in Tuscany, prefer to age the wine in barrels and glass demi-johns before bottling.

Certainly what comes out of the barrel at the end of the ageing period has become even more precious because of evaporation; in some cases a 50-litre cask filled with 45 litres of must will return only 15 litres of concentrated Vin Santo. The production of Vin Santo is very lengthy and costly, which is the major reason why it is not widely distributed in any quantity outside Italy.

If you happen to be touring in Italy in the regions of Tuscany or Umbria, it is worthwhile to search out one of the world's great sweet wines. There is a small production of Vin Santo in the Veneto from garganega grapes, but the rarest is probably the Vin Santo made in northeastern Italy from an obscure grape, nosiola, found only in Trentino. The oxidized style of Vin Santo makes it less fragile than simple table wine; thus it will travel well and will keep for a long period of time in the refrigerator after opening. However, after you taste the concentrated and persistent flavours of the best holy wines, such as those produced by Avignonesi, Isole e Olena, and Frescobaldi, I doubt that there will be much left over for another occasion.

Vin Santo is part of Italy's wine culture; its production is considered to be an art, not a commercial undertaking. If you are fortunate enough to happen upon a bottle please treat it with the respect due to a legend. Serve it slightly chilled and in small amounts, accompanied by some almond cookies or honey cake, and in the company of good friends. Although I can not promise that this sweet, velvety, liquid treasure will change anyone from a sinner to a saint, in my experience imbibers tend to wear rather angelic smiles after a glass or two.

GERALDINE RUBINO
Geraldine Rubino is an oenologist and a Toronto-based freelance writer on wine

The University of Calgary
Nickle Arts Museum
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The University of Calgary Nickle Arts Museum is a university arts museum with major strengths in Canadian contemporary art and numismatics. Other interests include archaeology, ethnology, and other art. The museum occupies its own building of 11,600 sq. ft. and is operated by a full-time staff of eight. A Board of Directors works with the Director in establishing museum policies and major directions.

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Bugs and Bodies or The Entomological Sleuth

Insects found on corpses help to solve crimes

By Pat McKeown

On 4 June 1984 motorists found the half-naked body of a young woman beside a country road in the northwestern United States. An autopsy revealed she had died of multiple wounds to the head and neck inflicted by a heavy sharp object. The victim was identified as a 14-year-old prostitute whose brother had reported her missing four days before the body was found. The young woman had last been seen alive on the morning of 31 May in the company of a 30-year-old army sergeant who became the primary suspect.

During the investigation, fly larvae, adult flies, and other insects were collected from in and around the victim's wounds. Some of these insects were reared to the adult stage by forensic entomologists; others were preserved. Scientists determined that the first insects to colonize the body had arrived on 31 May, four days before the remains were found.

As a result of this evidence, the army sergeant was arrested and charged with first degree murder. He admitted to having killed the victim around noon on 31 May and was sentenced to life in prison with no parole.

This case illustrates how insect evidence when properly collected, processed, and observed can provide an accurate estimate of the time of death. "When it comes to assigning a time of death by a scientific methodology, the insects are it," says Neil H. Haskell, a graduate researcher in forensic entomology at Purdue University in LaFayette, Indiana, and a lieutenant in the Indiana State Police Force with more than 140 cases to his credit.

The Metropolitan Toronto Police would like to have this new weapon in their crime-solving arsenal. Talks undertaken with Dr. Christopher Darling and Dael Morris of the Royal Ontario Museum's Department of Entomology are leading to more co-operation between the two organizations, and to the creation of something dubbed a Maggot Unit by Neil Haskell.

In its widest sense, forensic entomology refers to any insect evidence

---

Pat McKeown is an editor and writer based in Toronto and a former producer for CBC Radio

used in a court of law. But more narrowly, forensic entomologists work on death investigations using invertebrates such as beetles, moths, and especially blowflies to help determine the time and place of death. The forensic entomologists collect the adult insects, larvae, and eggs found on corpses, to determine when death occurred and whether the body was moved.

John Skeaff, acting detective with the Forensic Identification Services of the Metropolitan Police, started the ball rolling in Toronto when he suggested to Dr. Darling that the police and the ROM's Department of Entomology develop a closer relationship.

In 1989 Skeaff attended a seminar conducted by forensic entomologists from the United States. He came away convinced that Metro police could use insects more often in their cases. In the past, homicide detectives or scene-of-the-crime technologists had occasionally sent preserved larvae to the ROM for identification, but the relationship was sporadic and the live insects that are essential for confirmation of species identification and in-depth study had never been collected.

PHOTOGRAPHY BY EZIO MOLINARI

Dael Morris of the Royal Ontario Museum has assembled an entomological sleuthing kit that can be used by police investigators at the scene of a crime.

Skeaff pursued his growing interest in forensic entomology, heading south for a week-long course on scene investigation and recovery of human skeletal remains. He spent the time in a field observing a body exhumation and examining decomposing animal carcasses, and collected insect specimens to examine later and identify. "The course really whetted my appetite for more of this type of work," he says. "The sights and smells were pretty gruesome and it's not everybody's cup of tea, but once you can approach it from the standpoint of helping the victim's family, you can overcome those feelings."

While Skeaff's interest in forensic entomology dates back only two years, modern forensic entomology began with the work of European researchers in the nineteenth century. The investigations of J. P. Mégnin, who published *La Faune des cadavres: Application de l'entomologie à la médecine légale* in 1894, were crucial in establishing some basic principles. He postulated that a corpse exposed to air undergoes a series of eight changes, and that insects characteristic of each stage appear in regular succession. By identifying the insects on the corpse, Mégnin said he could estimate the time of death.

Earlier historical accounts of forensic entomology are very rare. A thirteenth-century Chinese manual on forensic medicine tells the story of a farmer who died of wounds inflicted by a sickle. The investigating

officer assembled all the farmers from the neighbourhood and had them lay their sickles on the ground. It was mid-summer, the weather was hot, and blowflies landed on only one sickle, whose owner then confessed to the murder.

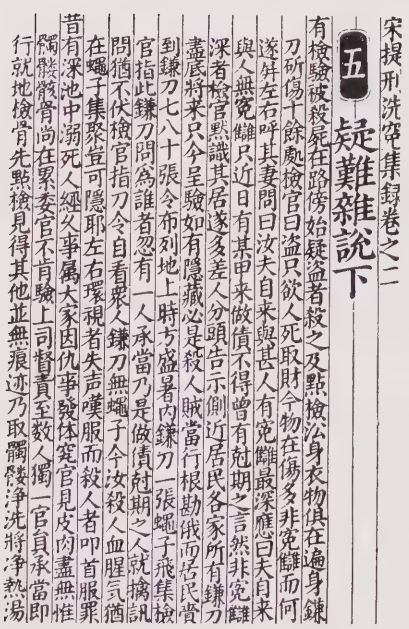
Most of the literature on forensic entomology has been produced by European scientists: interest in this crime-solving technique has been slow to catch on in North America. Neil Haskell thinks this is because the technique requires a tremendous amount of knowledge of so many insect species and because it is quite a revolting activity: "To sit there and pull maggots off somebody's face is probably about as disgusting a thing as anyone could do," he says. However, Haskell believes that interest in insects for crime-solving will continue to grow because "law enforcement officers are finding that courts and attorneys are demanding so much scientific corroboration, and one thing we can definitely provide is accuracy."

John Skeaff thinks it is the relatively small number of murders in this country that has delayed Canadian interest in the subject: "Take Toronto compared to Washington: we have far fewer murders, so need is one factor." Skeaff admits that as the Canadian population increases, with an accompanying escalation in the the number of murders, the need for entomological evidence will grow.

The insects most intensively studied for forensic purposes are blowflies. However, they are not the only insects to be found on corpses: beetles and mites often make up a high percentage of the fauna associated with a cadaver. Apart from fungi and bacteria, insects are the largest group to aid decomposition. They are very efficient decomposers—witness the fact that we are not surrounded by rotting carcasses although even in cities, wild animals such as squirrels and raccoons die each day. A human corpse is the object of the decomposers' attention in the same way as animal carrion.

Illustrated below is a passage from *The Washing Away of Wrongs*, by the thirteenth-century author Sung Tz'u, which tells how flies on a sickle exposed a murderer.

By studying the insects found on corpses, forensic entomologists can determine an extremely accurate time and place of death


宋提刑洗冤集録卷之二

五 疑難雜說下

有檢驗被殺屍在路傍始疑盜者殺之及點檢沿身衣物俱在遍身鍊刀所傷十餘處檢官曰盜只欲人死取財今物在傷多非冤讎而何遂拜左右呼其妻問曰汝夫自来與甚人有冤讎最深應曰夫自来與人無冤讎只近日有其田来做債不得曾有尅期之言然非冤讎深者檢官默識其居遂多差人分頭告示側近居民各家所有鎌刀盡底將来只令呈驗如有隱藏必是殺人賊當行根勘俄而居民嘗到鎌刀七八十張令布列地上時方盛暑内鎌刀一張蠅子飛集檢官指此鎌刀問爲誰者忽有一人承當乃是做債尅期之人就擒訊問猶不伏檢官指刀令自看衆人鎌刀無蠅子今汝殺人血腥氣猶在蠅子集聚豈可隱耶左右環視者失声服而殺人者叩首服罪昔有采池中溺死人經久事屬大家因仇事發体究官見皮肉盡無惟髑骸骨尚在累委官不肯驗上司督責至数人獨一官員承當即行就地撿骨先點撿見得其他並無痕迹乃取髑髏淨洗將淨熱湯

There are five groups of insects that colonize dead flesh. First, there are those already on the body prior to death, for example fleas or lice. Scavenging insects, mainly flies as well as carrion beetles, are next attracted to the corpse. Third are the predators and parasites of the scavengers such as histerid beetles, rovex wasps, and flies. Then there are generalist feeders, such as wasps, ants, and some beetles, that will consume some of the corpse and attack other insects. Last, there are the vagrant species, among them springtails and arthropods such as spiders, that are attracted by the warmth and moisture of the decaying flesh but play no part in its decomposition. Insects from all these categories can play a role in the forensic process.

As a body decays, it becomes a succession of habitats for different species of insects. After death, the body is attacked by microbes and begins to decompose. Malodorous compounds attract wave after wave of different fly species. Blowflies come in the first wave, laying their eggs within hours of the death, because they prefer fresh cadavers not yet in the liquid state. These scavenging insects are first attracted to body fluids and fecal materials oozing from natural openings and to blood escaping from wounds. In time the flesh, and later the underlying tissues and bones, become attractive to other groups of scavengers.

Insects help in the decomposition of a corpse mechanically and chemically. Their feeding consumes large portions of flesh, while the enzymes they secrete to break down tough tissues contribute to the liq-

uefaction of the corpse. The most dramatic decomposition of the body is aided by fly larvae that can live in a semi-liquid medium. Only much later, when the corpse has to a large extent dried out, do species of other insect groups, such as beetles and clothes moths, move in and continue the process.

Flies lay their eggs in wounds and in ears, nose, mouth, and if exposed, the anus and genitalia. The eggs are easily seen by the naked eye and, depending on temperature, hatch in two to three days. The resultant larvae or maggots are relatively featureless, legless creatures, difficult to identify as to species. Features of respiratory openings and the skeleton of the mouth parts help make it easier to identify the species.

The larvae grow rapidly, passing through three moults before becoming fully grown. At this stage, they crawl away from the corpse, burrow down into the soil or clothing, and pupate. The life cycle is complete when the adult emerges from the pupal case, crawls to the soil surface, and flies off. To estimate the postmortem interval, the entomologist collects the fly larvae and rears them under controlled environmental conditions until they are adults. The species can then be identified by the use of available literature and insect reference collections. Having determined the species, age, and the developmental period of the larvae, the scientist turns the clock back to the time when the mother fly of that particular species would have been attracted to the corpse to lay the eggs that hatched into the collected larvae.

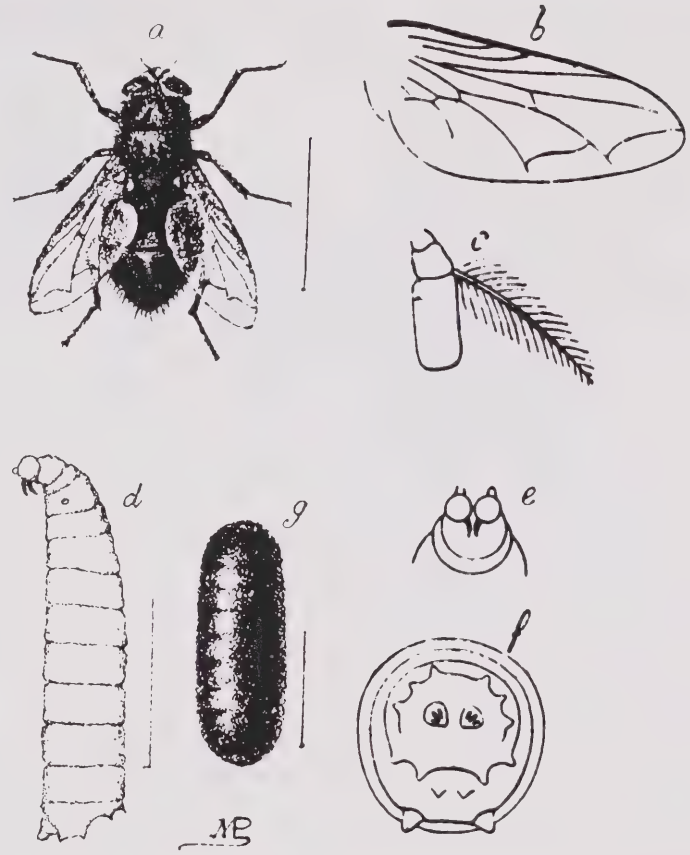


Fig. 3.— *a, Calliphora vomitoria* Rob.; *b*, son aile; *c*, une antenne; *d*, sa larve; *e*, extrémité antérieure de cette larve; *f*, son extrémité postérieure; *g*, la nymphe.

An illustration from *La Faune des cadavres: Application de l'entomologie à la médecine légale* by J. P. Mégnin. This book, published in 1894, was crucial in establishing some basic principles of forensic entomology.

Many factors influence the rate at which a body is colonized by successive waves of insects, with climate playing an important role. Cold, wet, windy weather delays the arrival of scavenging insects. A fly preferring a warm temperature for egg-laying will be attracted to corpses that have been heated by the sun. If a corpse discovered in a cool, shady area is found to be colonized by this species of fly, the evidence suggests the body has been moved. In addition, the microclimate where a body is found may be quite different from the climate of the general area.

Neil Haskell specializes in the study of macro- and micro-climatic influences on insects found on a body. He points out that most weather stations in the United States are located in airports or at the agricultural stations of universities, where the environment may be quite different from that where a body is found. He recalls a case a few years ago in Indiana, where the National Weather Service station at the airport recorded 28°C. At the scene of the crime, an alert police officer record-

ed some temperatures. The body had been found in a deep and shady ravine where a stream flowed and the temperature was only 18°C. "If someone had not known that difference," says Haskell, "there would have been a complete misunderstanding of the data. A much shorter period of time since death would have been given than that which actually transpired because of the lower temperature."

Another factor influencing the rate at which insects will colonize a body is whether it is covered. Insects have only partial access to a clothed body, and no access to a body with even a thin covering of soil. As a general rule, the deeper the burial, the more delayed the decay. Flies preferring a fresh corpse will be attracted to the smell of a buried body but will not be able to reach it. If the covering is very thin, the flies may lay some eggs, leaving the larvae to burrow down to the corpse. However, most early scavengers do not lay eggs on soil. Because scavengers are responsible for turning the body into a liquid state with their feeding, their absence means the corpse takes much longer to diminish in size. Depending on climatic conditions, it takes six or eight weeks for a buried carcass to be reduced to 20 per cent of its live weight. However, if the body is exposed, it may take less than one week for it to lose 90 per cent of its original weight.

Burying a body might prevent blowflies from colonizing it, but even in these cases the flies can still provide important clues. In Indiana, a murder victim had reportedly been thrown down an open well on a small farm, and the well was then completely filled with junk, tires, and rocks. The exact location was not known and many farms were being searched. Investigators knew they had discovered the right location when they drove into one farm yard and saw thousands of flies hovering over a pile of old tires. The body was found under the debris at the bottom of the well. Although decomposition was advanced, no insects were found on the remains. Junk had prevented the flies from reaching the body, but they were attracted to the smell of the decomposing corpse.

ROM scientists are helping the Metropolitan Toronto Police to add forensic entomology to their crime-solving arsenal

While Neil Haskell believes that forensic entomology will play an increasingly important role in crime-solving, he does not think that forensic entomologists will always provide evidence to resolve a case. Instead, he sees the study of insect evidence playing a major scientific role in corroborating other kinds of evidence, physical or testimonial.

A case Haskell worked on three years ago illustrates the supportive role of the entomological sleuth. In November 1987, police were asked to check the whereabouts of a 69-year-old man missing for two days. When officers entered his house, they found him dead of natural causes, as an autopsy later confirmed. This devout, church-going citizen had for years been the only care-giver to his invalid aunt and sister. Police immediately entered the bedrooms of these ladies and found them both dead, in advanced stages of decomposition.

In one bedroom they found the mummified remains of the aunt, partially skeletonized by insect feeding, and several hundred empty blowfly pupal cases. The sister's corpse showed very little skeletonization; tissues were mummified and desiccated, and only two pupal cases were found at the scene. Investigators also noted a stringy, brown, horse-hair-like material associated with the soft tissues of both corpses. Haskell was stumped, until he remembered reading about something similar identified in a very old corpse found in Copenhagen in 1962.

"It turned out the stuff was fecal material from larder beetles. As far as I know, it's only the second time it has ever been seen."

Haskell estimated that the aunt had died early enough in the autumn for maggots to invade her body and develop into the pupae whose empty cases had been found near the remains: he suggested the death had occurred in October several years before. In the case of the elderly sister, Haskell concluded that death had occurred in late December or January several years previously, because the corpse was almost untouched by flies, which are inactive during winter.

Haskell did not know that when he estimated the times of death there was already other evidence to support his deductions. The lady whose death he had set in October had been keeping a diary in which she had told how she and her niece were failing and how they were being well looked after by the younger man whose own health was weakening under the pressure of their care: the diary's last entry was on 5 October 1977, ten years before the discovery of the bodies.

The sister had open Christmas cards from 1977 in her room, but unopened birthday and Easter cards for 1978: her birthday was in March. "We can't say for sure for either of them, but the entomological evidence was important in corroborating those months and other physical evidence gave us the year of the deaths," says Haskell.

PHOTOGRAPHY BY DAEL MORRIS

Magnified 63 times, the mouth parts of the maggot can be clearly seen. The form of the mouth parts and other body parts of larvae help entomologists to identify the species of the insects.

Autopsies showed that neither of these women had died of foul play. A criminal aspect did enter the case, however, when it was discovered that for 10 years after their death the care-giver had continued to cash their Social Security and pension cheques. The gentleman had cared for his loved ones for so long that he couldn't bring himself to get rid of their bodies. If he had stopped cashing their cheques, their deaths would have become known. He had even continued buying groceries for three people.

There was no next-of-kin so the church inherited the estate. However Social Security and the pension fund wanted all their money back. Haskell reports that "based on the evidence of the diary, and testimony from handwriting experts that the signatures on the cheques had changed, all this supported by the entomological evidence, the church settled for whatever it could. The insects saved taxpayers a lot of money."

Entomotoxicology is another area where insect sleuths are only be-

ginning to make a contribution. Recent studies have shown that commonly abused drugs can affect fly development, and that fly larvae can play an important role as toxicological evidence. Forensic pathologists must often work with decomposed and skeletonized human remains which no longer provide the blood, urine, and solid organs necessary to test for toxic substances. In some cases maggots found on a corpse may provide some of the missing pieces in that puzzle.

In one case, live maggots were collected from the body of a young woman found murdered in a pine wood. The size of one very large maggot indicated it to be about three weeks old, considerably older than other larvae found on the body. However, other information ruled out the possibility of this being the maggot's age. One explanation of the maggot's unusual growth was its location in the nasal recesses of the victim. Recent research has shown that there is rapid development by maggots feeding on tissues containing cocaine. Later it was found that the victim had a history of cocaine abuse, and a witness testified that the woman had snorted the drug shortly before her death.

Insect sleuths know they have a lot to offer law enforcement, but Haskell warns against depending too much on the literature without undertaking original research. "The biggest problem I can see is people new in the field, coming in with no case experience and no research background: they haven't set things out and watched them decompose."

Haskell himself has had the advantage of working on decomposing human bodies with Dr. William Bass, an internationally noted forensic anthropologist at the University of Tennessee. He recommends the experience to any budding insect detective. "There are humans out decomposing under the hickory trees along the banks of the Tennessee River," he says. "As far as I know it's the only place in the United States where it can be done legally." The corpses are donated by families or they are unclaimed bodies. Haskell's family has instructions to donate his body to the university if he meets an early demise. He fancies the thought of being laid out under the hickory trees in the interests of forensic science, and relishes the notion of a kind of immortality when his denuded skeleton joins the collection of the Department of Anthropology.

Even if forensic entomology is used successfully to help solve only one murder, if the victim is someone you love you would want that tool available

Dael Morris arrived at the Royal Ontario Museum in January 1990, armed with an M.Sc. in entomology. When Dr. Christopher Darling, head of the department, asked her to pursue discussions with John Skeaff, with a view to increasing collaboration with the Metro police, she was thrilled. "I love the idea. I wanted to be a detective when I was a little kid, so now I get to apply both entomology and detective work at the same time." She is preparing a reference collection to help in the identification of insect specimens collected from human bodies in the Toronto area, as well as creating a holding and rearing facility for flies.

Part of the identification process involves growing live maggots to maturity, when their species can be positively identified. Identification is based on the knowledge of the investigator, available literature, and the reference collection assembled to represent the carrion insects active in the region. "There are no forensic entomology reference collections this far north right now," says Morris, "I'm developing one from my research with fetal pigs."

Her work with fetal pigs and also with butchered chickens has pro-

vided Morris with a glimpse of what lies ahead at her first scene-of-the-crime investigation. She admits the smell was revolting but says, "If you look past that to the insects and to their essential role in decomposing something, then you become fascinated and forget the gruesome parts. And you still have lunch and you don't become a vegetarian."

She also plans to hold a workshop for police involved with scene-of-the-crime investigations so that they can properly collect and preserve live insects for later identification at the Museum. She says, however, "the idea is not to turn police officers into entomologists." She and Neil Haskell think it is important to have an entomologist at the scene where the body is found or at the autopsy, because entomologists are trained to notice tiny things: untrained officers wouldn't necessarily recognize fly eggs.

The prospect of seeing bodies in various stages of decay is something Morris admits is intimidating. However, she is hoping one day to be sufficiently experienced to testify in court as an expert witness. To achieve that status, she will start by going out to a few suicides to collect specimens to estimate time of death, just as if each were a homicide. The idea is to develop a portfolio of cases first.

PHOTOGRAPHY BY DAEL MORRIS

The blowfly, in all its stages from egg to adult, is one of the most common insects studied in a death investigation.

Morris is putting together the prototype of an insect crime-site kit to be used by Metro Toronto police. The equipment will include such items as thermometers; pocket-sized collapsible aerial nets to collect live flies; soft, lightweight forceps to pick up the bigger larvae; and small watercolour brushes for picking up the tiniest maggots. "You want the maggots to stick to a wet brush, and so you carry a little vial of distilled water to moisten each brush because you don't want to put the brush in your mouth," she cautions. She adds: "We're trying to make it possible for forensic entomology to become a routine part of procedures at the scene of a crime."

It is Neil Haskell's opinion that Canada is a whole new world for "Maggot Units." "Each geographic area needs its own insect detectives," he says. "While some of the literature from Northern Europe might apply in Canada because of similarities in climate, Canada might have very different species of insects."

John Skeaff agrees that forensic entomology should be applied more widely in this country. "Even if it is used successfully to help solve only one murder, if it were your child or sister or husband, you would want that tool to be available." ❦

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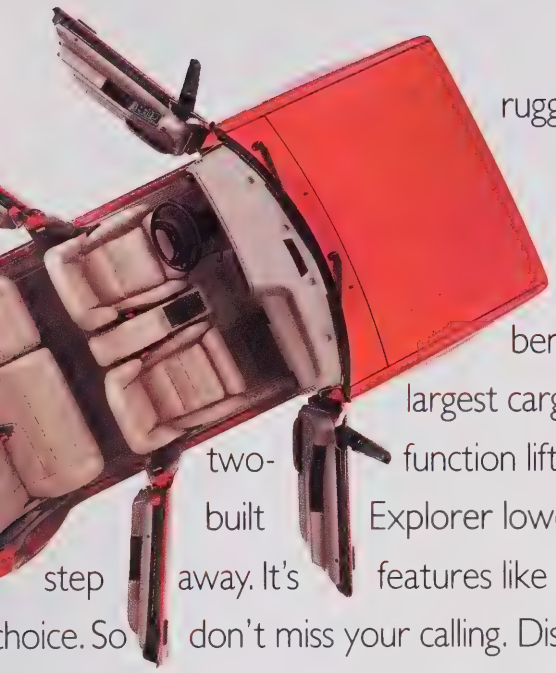

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1991 Explorer

The Tough Fibre of Bali

What can Canadians, so mired in the search for a cultural identity, learn from the Balinese?

By Barbara Stephen

Canadians who have travelled to Bali frequently contact curators in the ROM's Far Eastern Department to ask us about objects that they've purchased there and brought back home. Although some of these objects were collected during visits years ago, most were acquired recently, and I began to wonder about the impact of tourism on a traditional culture of fabled richness.

In June 1990 I joined a group planning to spend about two weeks in Bali. Members of the group were most interested in the visual and performing arts, and they intended to see a great deal during their brief stay. While it is always frustrating to spend a very short time in any place with so much potential for exploration, this was still a good opportunity to see first-hand what was happening in Bali.

In a world of increasing cultural homogeneity, I frankly feared that we would discover that the much-admired older art forms had given way to the demands and tastes of international tourism, for now even the most remote areas attract tourism and development at an ever-accelerating rate. Cruise ships frequently churn the offshore waters of Southeast Asian islands with names that sound so alluringly isolated—Sumatra, Java, Bali, Kalimantan, or Irian Jaya. Traditional ways of life, which in

Children at the Prince's Palace in Ubud learn basic dance movements, which they will perfect and, in time, pass on to the next generation.

PHOTOGRAPHY BY BARBARA STEPHEN

Barbara Stephen is a curator in the Far Eastern Department of the Royal Ontario Museum

many places survived with little change to the middle of this century, are under extreme stress as a result.

A sense of uneasiness about the capacity of Balinese culture to survive has been shared by many European and American visitors throughout the twentieth century. Anthropologists were among the first to observe signs that traditional religious and cultural values were being eroded or marginalized, although a somewhat overly romanticized view of Balinese life which prevailed before the Second World War may have coloured some of their judgements. There is no doubt that the many events of this century, which in Indonesia led to Dutch sovereignty, a pre-war influx of tourists seeking an idealized South Seas style of life, Japanese occupation, revolution and subsequent political reorganization, and now a period of mass tourism, have all had their impact.

And yet, while it is surrounded, and to some extent permeated, by change, travellers discover that Bali has somehow managed to preserve an exotic and highly attractive local character. It certainly lacks the sometimes frenzied air of industrialization of its great island neighbour, Java. The most conspicuous development activity is concentrated on beach areas where international hotel chains attract travellers seeking paradise without pain. Its traditional performing arts, sensuous yet refined, are accessible and usually maintain a high standard even in the most touristic situations. In spite of a general fear that none of this can long survive, Bali continues to shimmer in the foreign imagination like some dream of the South Seas gentle, friendly, lush, and beckoning.

In Bali every person is said to be an artist and the arts are a fundamental part of daily life

An elaborately constructed cremation tower is an example of Balinese material art and a fulfilment of social and religious obligations.

Perhaps because it has long been overshadowed by the size and energy of Java to the west and assisted by an island geography that is uninviting to the trading activity of major sea routes, Bali has, with intermittent exceptions, been left through history with relatively little outside interference. The Dutch, who had a strong influence on most of Indonesia, did not gain full administrative control of Bali until 1908.

Throughout the preceding centuries religious impulses, mainly emanating from India and transmitted either directly or indirectly through other Southeast Asian kingdoms appeared as distinct waves in Java. Buddhism inspired the great monument of Borobudur near Jogjakarta. The influence of Hinduism is visible at the temples of nearby Prambanan and the monuments of east Java. Islam currently predominates. But over the centuries in Bali, Hinduism and Buddhism blended into one religion with the native substratum of spiritual beliefs based on personal relationships with nature and ancestors. The Hindu elements clearly predominate, but the religion is unmistakably Balinese in character.

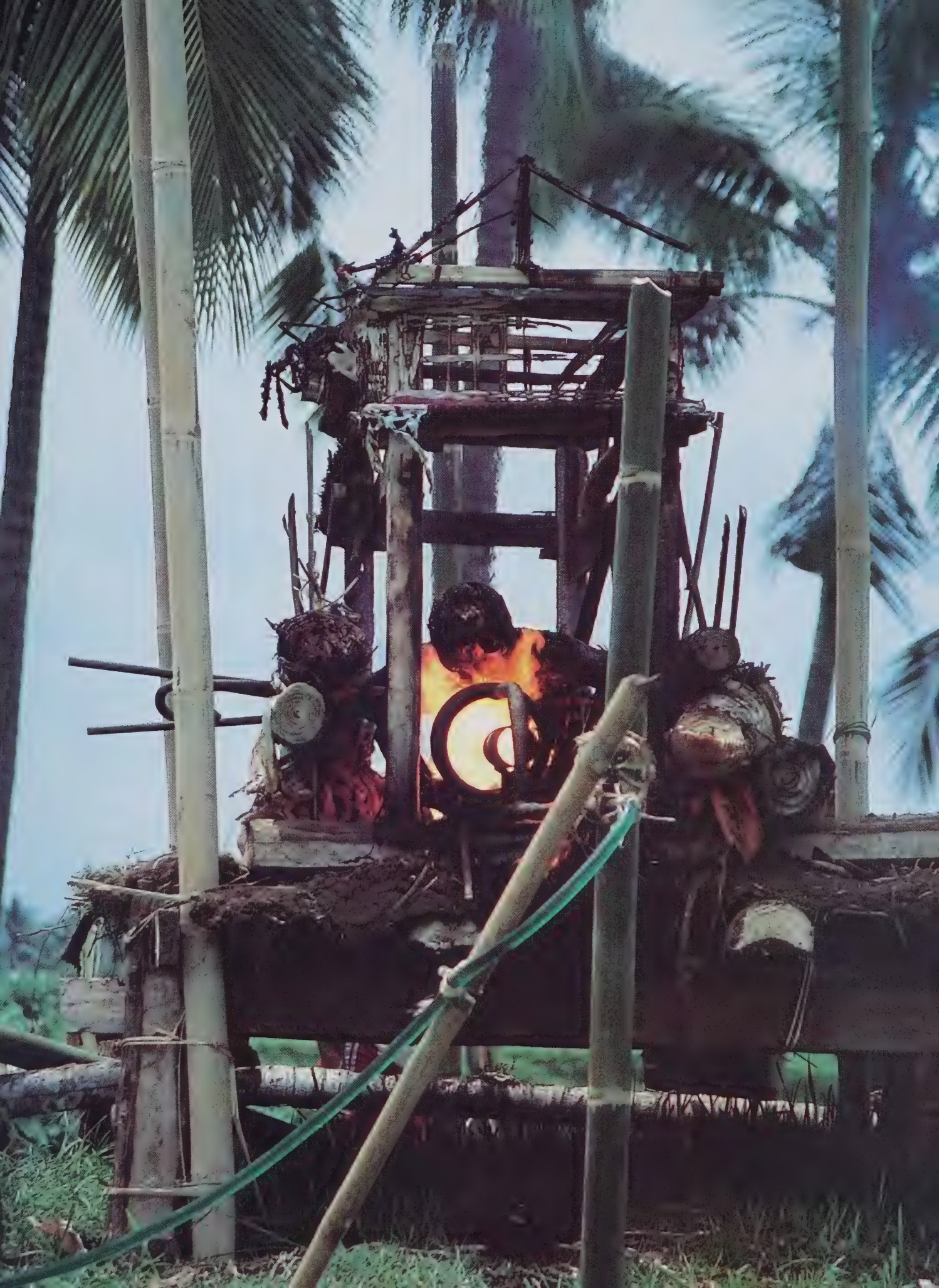
Holiest of all the temples of Bali, the Mother Temple of Besakih is thought to be on the site of a much earlier pre-Hindu sanctuary devoted to the spirit of the great volcano, Gunung Agung. The place has an awe-inspiring quality of power and stillness, with mighty slopes looming behind it. Unlike most island people, the Balinese do not orient themselves to the sea but rather to the heights. This seems natural when one stands at Besakih looking upwards at the majestic volcanic cone. The whole chain of Indonesian islands lies on one of the Earth's lines of volcanic activity with its awesome potential for both destruction and creation of land. During the eruption of Krakatoa in 1883 virtually a whole island disappeared between Sumatra and Java, and it is reported that the sounds of the eruption could be heard as far away as Sri Lanka and the Philippines, and that dust clouds tinted world sunsets for many months. In this environment the symbolism connected with the Hindu high god Siwa, who is regarded as both creator and destroyer of the universe, seems completely at home.

A profound external pressure on Balinese culture occurred after the island came under the cultural influence of Hindu East Java in the ninth and tenth centuries. Relations between Java and Bali intensified when the eastern Javanese Majapahit Empire conquered Bali in 1343. In the sixteenth century, following the collapse of the Majapahit Empire and the spread of Islam through most of Java, many members of the ruling families of the Hindu courts moved to Bali together with priests and artists dependent on their patronage. They were intent on preserving their religion and old courtly arts. The living arts of Bali, the dance in particular, evoke the courtly arts of these lost Javanese kingdoms. This is not to say that Balinese arts are mere relics of earlier Javanese culture, however, for they are constantly evolving in a context characteristic of Bali alone.

Earlier in the twentieth century a few Europeans of artistic bent discovered Bali in a relatively pristine state, and spread abroad the image of a tropical paradise that lingers to the present day. A 1932 film, *Die Insel der Dëmonen* (*The Island of Demons*) helped to popularize this image. Since then many artists have been drawn to the island where every person is said to be an artist and where the arts are a fundamental part of daily life. Such a place might well seem like paradise to visitors from cultures in which art is generally regarded as considerably less than central to existence.

Foreign artists who have taken up residence in Bali have left their mark. Miguel Covarrubias, the well-known Mexican artist and cultural anthropologist, visited Bali

PHOTOGRAPHY BY DELORES GUBASTA



with his wife in 1930, returned for another sojourn in 1933, and recorded his observations and experiences in his book *Island of Bali*, published in 1937. Covarrubias encountered and was befriended by Walter Spies, a painter well known in Europe before he wandered away to Java, where his musical talent inspired the Sultan of Jogjakarta to ask him to form and lead a Western-style orchestra. After some years at this work, while also studying local music, Spies visited Bali. He stayed there for the remainder of his life.

Spies was one of several foreign artists who inspired a renaissance in the art of painting, which had suffered from the lack of princely patronage perhaps more than other arts under the Dutch. Even in the princely courts, which sponsored so much artistic activity, Balinese art remained primarily an expression of devotional practices linked to the temples and to temple festivals and ceremonials. However, twentieth-century Western influence led to some acceptance of another viewpoint, that of art for its own sake and as a form of personal expression.

Particularly in Ubud and in adjacent villages this Western-inspired concept of art took root, most notably in painting and sculpture. In spite of the trauma of the war years the secular art forms survived and still flourish. The streets of the town of Ubud are lined with shops displaying the work of contemporary artists who produce paintings, ceramics, woodcarvings such as masks, jewellery, and textile arts. While this kind of art production certainly has a comfortable place in contemporary Bali, it is in no way central to Balinese life, where artistic expression remains strongly rooted in social and religious purpose. The basis of the arts in the everyday life of the villages led one foreign observer, the Swiss ethnographer Urs Ramseyer, to comment that while Bali has no fine art comparable with that of industrial civilizations, it has instead "an unequalled concentration of folk art."

A small offering is made at a temple in a rice field near Ubud. Such offerings are part of the daily rituals performed by all Balinese.

The island described by Covarrubias and illustrated in the photographs by Rose Covarrubias still exists, in most respects, yet there are universal signs of modernization such as faded Batman T-shirts and motorcycles. The women no longer walk about bare-breasted, a custom successfully discouraged by the Dutch. Covarrubias's book ends with a chapter that laments the worst effects of modernization, and cautions that without the establishment of an educational system supportive of native arts their future would be in jeopardy. He also reflected on the sorry consequences of missionaries' attempts to make converts. As Balinese religion is an essential component of Balinese culture, any attempts to separate religion from culture would result in chaos. Similar concerns continue to be expressed today.

Whereas Western civilizations preserve and carefully conserve past arts as precious records of the vanished

PHOTOGRAPHY BY DELORES GUBASTA

sensibilities of another time and way of life, the Balinese seem to consider most of the arts as ephemeral. The culture remains capable of reproducing or updating art forms as a new generation of Balinese is constantly being trained or inspired to follow the living traditions. Musicians and dancers, and many visual artists as well, learn through their associations with established practitioners. Dancers learn basic movements, and are corrected patiently until the gestures and postures are as they should be. Their skills continue to grow until they too may be considered ready to teach students. Similarly children sit at the gamelan instruments as fill-ins during rehearsals until a more formal association with an orchestra comes about.

In Bali art instruction seems to focus on inspiration, co-operation, and the creation of an awareness from early childhood of the religious and social obligations that provide the impetus for artistic creativity. For example, a cremation ceremony is one in which the arts are a necessary component. To assist in the production of the ceremonial art is not only a creative act but also the fulfilment of social and religious obligations. In fact, various arts are required to conduct most of the rituals connected with a life marked by almost constant spiritually or religiously motivated activity.

Much of the material art produced for such purposes is expended, whether burnt like the elaborately constructed and decorated cremation towers or consumed as food offerings on special occasions. Because of this, and also because it is essential that all ritual art and offerings be of the finest and freshest materials, many of which are perishable, constant renewal is necessary.

Those who worry about the future of Bali's traditional culture fail to understand the tough and resilient fibre of the social and religious structures which support Balinese artistic expression

The simplest rituals are conducted each day by every household. Women produce small offerings, perhaps just a dab of rice on a square of palm leaf, or freshly made banana-leaf trays carrying a few grains of cooked rice, some flower petals, a sprig of fragrant green, and perhaps an incense stick, to be deposited here and there about the house to honour certain places, and to please the good and appease the dangerous elements that come from above or below respectively. The women and sometimes the children distribute them, and sweep away the previous lot. One morning I saw a woman from a shop in Ubud take a small offering out to place on the ground in front of her open shopfront, stopping first to caress the air about a hibiscus bloom. She did it quite consciously, reminding me of the vogue of communing with one's flowering plants or even vegetables, with sometimes astonishing results.

It is often observed that the Balinese consider themselves in harmony with their natural environment, unlike Westerners who regard themselves as separate or even alienated from the natural world. Certainly there seems to be one all-pervading rhythm in Bali that permeates the music, the dancing, the vegetation, the decorative arts, and even the air itself. After a week or so of listening several times a day to gamelan music, watching dance-drama performances, looking at the profusely decorated palaces and temples, and seeing the batik and printed patterns of the favoured textiles, the very leaves of the trees began to fall into ripples of repetitive pattern.

Travel writers have now joined in the speculation about whether the traditional culture of Bali, apparently so gentle and fragile, can survive the onslaught of the full force of twentieth-century tourism and development. Their message is often to visit while you can, before it is completely spoiled. Bali is, after all, a very small island with a dense population and a very large airfield capable of handling all the jumbo jets full of holiday funseekers that Australia can send. On the vacationers' favoured beaches of Kuta and Sanur the subtle rhythms of the gamelan seem faint indeed, the sound of portable radios and motorcycles overwhelming. The material accoutrements of modern life have a seemingly irresistible attraction for the world's young. Certainly much change has occurred already, as is clearly shown by a comparison of Rose Covarrubias's photos of the virtually deserted beaches of Sanur and Kuta in the 1930s with the hotel vistas there today.

The romantic view of Balinese life, which is so easy to adopt after a brief exposure, is not, of course, the complete picture. The social and religious structures into which the Balinese are born and their lives enmeshed are composed of an exceedingly tough and resilient fibre. Strongly rooted in the family and social life of the village, and in the obligations of the various groups to which Balinese may belong, these structures are so powerful that they appear as an essential support for life itself. It seems that few Balinese, even today, leave their island; and while visitors can enjoy the visible manifestations of its life in the form of the arts, they rarely have the opportunity to become familiar with the singularly complex yet adaptive underlying structures which support that artistic expression.

One of the Balinese women I met was asked the inevitable question about whether she thought the culture of Bali could survive the powerful forces of change. She reflected for a moment, clearly pained by the idea that it might not, and then recounted the possibly apocryphal remarks apparently made by astronauts. They observed as they passed over Bali that it shone with a singular radiance; she attributed this to the presence of its temples. "Yes," she concluded after considering this allusion to the spiritual life force of her island, "I believe Bali will survive." Then she gave us a glowing smile. ❦

BLACK SHIPS AND BARBARIANS
PRINTS FROM THE EDO-PERIOD JAPAN

Through their images of foreign ships
Japanese printmakers reveal
the reaction of the Japanese to foreigners

船 黒

BY CATHERINE PAGANI & JOHN SUMMERS

JAPAN FIRST ENCOUNTERED THE WEST IN 1542, WHEN A PORTUGUESE TRADING ship was blown off course in a storm. From that time, Portugal and other European nations traded with Japan until 1639, when Japan closed her borders to all foreigners with the exception of the Dutch, the Chinese, and the Koreans.

This self-imposed separation from the West lasted for more than 200 years. Then, in 1853, Commodore Matthew Calbraith Perry arrived in Japan with a squadron of American warships on a diplomatic mission. His task was to break the trade monopoly held by the Dutch East India Company, and to open up Japan for trade with the United States.

Perry's arrival created great excitement in Japan. The Japanese were curious about the appearance and customs of the foreigners and their ships, which they called *kurofune* (black ships) because many were painted black and their coal-burning engines exuded thick black smoke.

Following Perry's mission and the subsequent opening of the five Treaty Ports of Yokohama, Nagasaki, Hakodate, Niigata, and Kobe, a flood of foreigners entered Japan. Yokohama, located not far from the capital of Edo, now Tokyo, was the main port of trade and so it came to symbolize Japan's new relations with the West and its people.

While only a few Japanese were actually able to see Perry or his ships and the subsequent flood of foreigners, many more were informed

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through the medium of the wood-block print. Six Japanese wood-block prints, on loan to the Far Eastern Department of the Royal Ontario Museum from the collection of the late Carl H. Boehringer, show a variety of foreign vessels in Japanese ports. The prints date from the Edo period, in the mid-nineteenth century, when Japan reopened its doors to foreigners. Mr. Boehringer, who worked for the United States Foreign Service in Japan from the mid-1930s until 1961, collected prints depicting a variety of subjects, but he was most interested in those which were produced after the opening of Japan to the West because they show the Japanese reaction to foreigners.

The realistically and artistically rendered ***Yokohama-e*** give a colourful and clear picture of Japanese reaction to foreigners after nearly 200 years of isolation

The prints at the ROM are of two different kinds. Four are *Yokohama-e* (Yokohama prints) produced immediately following the opening of the port of Yokohama in the 1860s. The other two are *kawaraban* (tile prints) so called because many of them were struck from clay blocks. While the images of the *Yokohama-e* are fairly realistic, the *kawaraban* were a rudimentary form of Japanese journalism, and tend to be more sensationalistic in their imagery.

The *Yokohama-e* were extremely popular and hundreds of designs, portraying traders and their wares, foreign ships, and far-off places and their people, were produced over the course of the next few years. The appearance of the foreigners was a seemingly endless source of inspiration for the Japanese artists and their audiences living both inside and outside the port towns.

The artists who designed the Yokohama prints were established *ukiyo-e* (or floating world print) artists and came from such famous schools as those of Kuniyoshi and Hiroshige. One of the more celebrated of these artists was Utagawa Yoshitora (active c. 1850-75). Although he created many prints about Japanese actors, he is best known for his prints on the subject of foreigners.

It is important to note that most of the *Yokohama-e* artists, Yoshitora included, did not actually see the foreigners, and so they had to turn to other sources for information. These included eighteenth-century Japanese prints showing the Dutch and the Chinese, and European engravings. Yoshitora relied heavily on these sources. Often his designs were inspired by European lithographs or such publications as the *Illustrated London News*, which were readily available in Edo-period Japan.

A wood-block *Yokohama-e* of a Chinese junk (1862) by Yoshitora also includes a text by the leading nineteenth-century Japanese writer Kanagaki Robun. Robun contrasts the great beauty of the junk with the superior strength of American ships.

Yoshitora's prints of the foreign ships contain lengthy inscriptions by Kanagaki Robun (1829-94), a leading author of the day. Robun's main objective was to sell his own writing, and he chose themes, such as foreigners and their ways, that would attract a large number of readers. The information he provides on the prints not only covers technical aspects of the ships' sizes and armaments but gives some historical anecdotes as well.

One print, dated the second month 1862, depicts a rather large ocean-going Chinese junk. The junk has banners and small pennants attached to the masts, a lantern at the stern, and black anchors secured at the bow. A *shishi* (lion-dog) head decorates the bow.

Robun's lengthy inscription tells of the differences between Western and Chinese ships. Although the Chinese junk has a "beautiful figure," writes Robun, it is "far less strong than a Western ship." Here he has touched on an interesting point. Western ships were built with one strong timber, called the keel, running from the bow to the stern along the bottom of the ship. Frames, which formed the support for the sides of the ship, were attached to the keel. Planking was then attached to these frames to form the hull. The junk, on the other hand, was built without the benefit of a keel. The bottom of the junk was constructed as a base and then bulkheads, or vertical planks, were attached to the base in order to divide the junk into a series of watertight compart-

PHOTOGRAPHY COURTESY FAR EASTERN DEPARTMENT, ROYAL ONTARIO MUSEUM

A *kawaraban* of an American steamship (1853-55) by an anonymous artist shows a sidewheel steam warship that was probably inspired by the steamers in Commodore Perry's squadrons, which visited Japan in 1853 and 1854.

PHOTOGRAPHY COURTESY FAR EASTERN DEPARTMENT, ROYAL ONTARIO MUSEUM

PHOTOGRAPHY COURTESY FAR EASTERN DEPARTMENT, ROYAL ONTARIO MUSEUM

Unlike *Yokohama-e*, the journalistic ***kawaraban*** were quickly produced black-and-white illustrations that show the immediate and often sensationalistic Japanese reactions to foreigners in their land

ments. When this task was complete, the side planks were added to finish the hull. The structure of a junk was not as strong as that of a boat with a keel, and this is the basis of Robun's comment.

Yoshitora also shows the difference between the sails of a junk and those of a Western ship. The lugsails on a junk are made of small panels of woven matting sewn together, and have bamboo battens which run the full width of the sail for support. Although odd in appearance to Western eyes, the lugsail is much easier to handle than a Western sail.

In the inscription, Robun also states: "When the Chinese began to fight against Westerners, they built ships more or less modelled after Western vessels. Thus, the present-day Chinese vessels are somewhat different from those of ancient times, but they have not lost the shape of the old ones in the main points." This interplay of technical features is clearly shown in Yoshitora's print where a Western-style topmast, complete with wooden steps to allow the crew to climb the extra few metres to the masthead, has been added to a Chinese junk. The flag at the stern, with its three horizontal stripes, identifies the junk as belonging to some degree of mandarin.

A *Yokohama-e* of a Dutch ship (1862) by Yoshitora is unusual because the ship is of a type that was not generally seen after the eighteenth century. Most of the ships illustrated by this artist could have been seen in Japan's international ports of the nineteenth century.

Another Yoshitora print, *An English Ship*, dated the second month 1862, depicts a full-rigged English warship. Two tiers of guns have been run out, and what appear to be boarding nets are rigged on the main deck.

Yoshitora, in his rendering of the vessel, has shown many of its distinctive features with reasonable accuracy. The most obvious is the shape of the hull, which is rather squat with sharply inward-sloping sides. Called the tumblehome, this feature was especially important for warships, as it increased the stability of the ship by making it narrower at the deck than at the waterline, thus decreasing the leverage exerted by heavy weights such as guns and accompanying shot. A warship of this size would normally carry between 50 and 60 guns, each weighing up to 3175 kilos. The ship appears ready for action. The guns are in position, the sails are clewed (or hauled) up to clear the deck, and the boarding nets, which look like tents and were used to make boarding of the vessel by enemy sailors more difficult, are in place on the deck.

It is quite possible that Yoshitora used engravings in the *Illustrated London News* as his source of inspiration for this print. The accuracy of the features he has drawn, such as the rigging, suggests that he worked from a detailed drawing. In fact, Yoshitora must have liked this particular ship very much as it also appears in several other of his prints illustrating foreign ports. The buildings in these prints can be traced to several newspaper illustrations, so that each print combines an odd assortment of structures from various parts of the world.

Yoshitora's *Picture of a Dutch Ship*, a third print dated the second month 1862, portrays an eighteenth-century full-rigged ship with an ornate sterncastle and an elaborate figurehead. The hull has a pronounced tumblehome, and a great many pennants and Dutch flags fly from every conceivable location. The Dutch ships were obviously objects of admiration, as Kanagaki Robun's inscription begins, "Dutch ships since olden times have led in navigation and travelled the world making great profits in trade." He also makes note of Dutch skill in shipbuilding to construct vessels "so strong they can navigate great oceans."

The ship in this print is unusual because it is of a type that was not generally seen after the eighteenth century, unlike the others by Yoshitora, which could have been part of the international port traffic at Yokohama in the mid-nineteenth century. The anachronistic features of the ship, such as the high sterncastle, suggest that Yoshitora probably used earlier prints of Dutch vessels—for example, the numerous prints of the Dutch Indiaman *The Schellach*—as his inspiration. In contrast to

Yokohama prints, *Nagasaki-e* (Nagasaki prints) often featured the Dutch, who had traded through the port city of Nagasaki since the early seventeenth century.

Unlike the *Yokohama-e* and *Nagasaki-e* the journalistic *kawaraban,* or tile prints, were designed by anonymous artists. Printed mostly in black and white, they were quickly produced and distributed to inform the Japanese general public of current events.

Commodore Perry made two trips to Japan, in 1853 and 1854. On his mission in 1853, his squadron numbered 15 ships, with a total of 260 guns and a crew of 4000. It is not surprising that some of the *kawaraban* illustrations suggest menacing sea monsters rather than American ships steaming into harbour. The subject of Perry and his men was so popular that tile prints were given the distinctive name *Peri* (Perry) *kawaraban.*

Picture of an American Steamship, a *kawaraban* dated 1853-55 showing an American sidewheel steam warship, was probably inspired by the steamers in Perry's squadron. Windscoops, which were used to improve the poor ventilation below deck, are rigged on the deck, and three white ship's boats are secured to the hull.

While the English and Dutch ships shown in Yoshitora's prints represent the apogee of sailing warship design, the American ship shows the new development that revolutionized naval warfare: steam power. In the *kawaraban* steam propulsion is indicated by the side paddlewheel and the large funnel spewing thick black smoke. Because the steam engine took up a good part of the interior space of a ship, the vessel has only one tier of guns instead of two.

The print also shows the shell guns, which replaced guns that fired round shot. Round shot, which were solid spheres of iron, used their sheer mass to smash their targets; shells, on the other hand, were hollow and filled with gunpowder and a fuse so that they exploded upon or before reaching their target. Shells were far more destructive, especially against wooden vessels, and thus a ship needed fewer guns to mount an effective offence. In 1853, the *Illustrated London News* reported on Perry's voyage and the power of his ships:

Every English sailor knows that American men-of-war carry more weight of metal to their size and tonnage than those of any other nation.... The Americans affirm that no fleet carrying the same number of guns, or even of the same tonnage, has ever yet floated capable of producing such destructive results.

In 1850, a "first-class steamer" of the United States Navy carried 10 guns in all, compared to the more than 80 guns that a wooden battery ship would have carried a few years earlier.

The shell guns were also a different shape from the round-shot guns, as the print shows. Bulbous and tapering towards the barrel, they are known as Dahlgren guns, after their inventor, John Dahlgren, a mid-nineteenth-century U.S. Navy officer. These guns were carried by Perry's ships on his mission to Japan.

Part of the print's charm comes from the awkward draughtsmanship shown in the treatment of the white ship's boats and masts, and of the figurehead, which looks more like a pigeon than a woman or heroic figure. The funnel melodramatically belches smoke and flame. However, as a portrait of an American naval steamer of the mid-nineteenth century, the print is reasonably accurate in its larger details.

Both the prints by Yoshitora, and the sensationalistic *kawaraban* satisifed the demands of the contemporary Japanese population for information on the new and unusual foreign presence. Through the eyes of the printmakers, a fascinating picture is revealed of attitudes in a country emerging from nearly two hundred years of isolation. ❦

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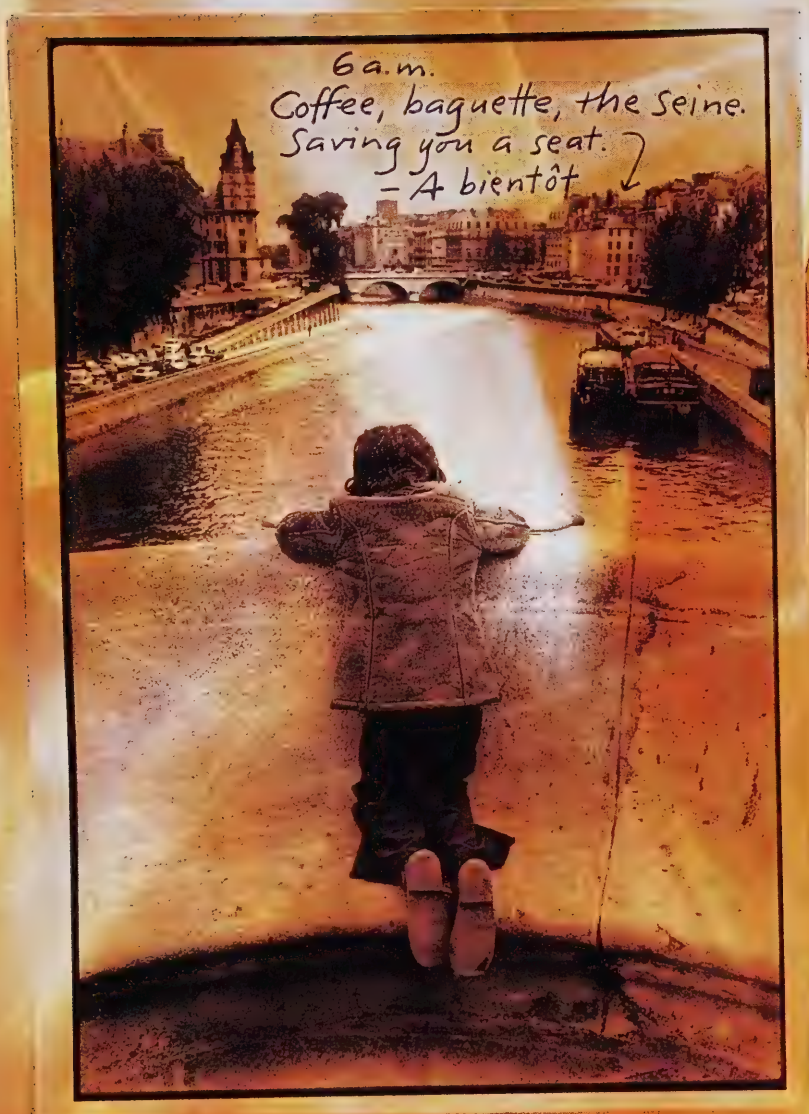

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THE OUTDOOR CANADA FUND (THE SPORTSMEN'S SHOWS) GALLERY OF BIRDS

SANDRA SHAUL
PHOTOGRAPHY BY EDWARD GAJDEL

THERE'S NO INSULT INTENDED IN the expression "It's for the birds" for those who have come to know and love the Royal Ontario Museum's Outdoor Canada Fund (The Sportsmen's Shows) Gallery of Birds, which opened in April 1990. An exploration and an appreciation of the world of birds are precisely what this gallery, including its brand-new Long Point Marsh diorama, is for and about. As visitors enter the introductory Hall of Flight their eyes are drawn upwards to view the overwhelming sight of a flock presenting all 26 living orders of birds, with each order represented by species from several families.

However, this presentation would quickly seem one-dimensional and lose its impact were it not for the vitality imparted by the sound of songs from 20 kinds of birds in the flock. And so biological diversity, a main theme of the Gallery of Birds, is dramatically revealed. It is a theme that runs through all the Life Science galleries of the Museum.

Yet beyond flight and song there are many other and less apparent ways in which birds are diverse. Each of twenty drawers located under the flock illustrates a different aspect of birds, from feathers to skeletons, nests, eggs, and food, and the vast variety within each aspect. One of the most important things that the

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drawer displays show is how the birds have adapted physically to their habitats—from the incredibly long tongue that woodpeckers use to lick insects from their burrows to the extended slender beaks used by a species of hummingbird to suck nectar from

The overwhelming flock of birds in the Hall of Flight greets visitors to the Outdoor Canada Fund (The Sportsmen's Shows) Gallery of Birds.

flowers. Among young visitors to the gallery, the "Baby Food" (worm) drawer has proved to be an overwhelming success.

male and female look for other mates after their eggs are hatched.

There are also one-sided forms

Each species of bird has its own mating and breeding pattern and examples of these are found in the first display beyond the Hall of Flight. As with other animals, some species of birds are monogamous, others polygamous.

Adult crows are assisted in the feeding of their newly hatched young by offspring born in previous years. Robins are monogamous and mate for life. In contrast there are the bigamous snowy plovers, of which both the

of polygamy. Among species that practise polygyny, like the eastern meadowlark, the males have several female mates at once or in rapid succession. Among polyandrous species, on the other hand, one female has several male mates. The brown-headed cowbird not only has several mates, she lays her eggs in the nest of a bird of another species, such as the yellow warbler. The adopted parent hatches and cares for the young cowbirds to the detriment

of her own young. In the case of the Wilson's phalarope, another polyandrous species, the female is larger and has brighter plumage

The Long Point Marsh diorama, showing the avian and other animal and plant life in this Lake Erie environment, is the newest addition to the Gallery of Birds.

than the male. She courts the male, lays her eggs, and then takes off to look for another male to repeat the mating cycle.

There are some other interesting variations on polygamy. Male sharp-tailed grouse, large and ornate, group together in a lek. Females are attracted to the lek, they mate, and then they fly off to lay their eggs and raise their young alone.

After the exhibit of breeding and mating patterns, the visitor encounters two display cases that require a close examination for full understanding, but they are well worth the effort. They show the rather schizophrenic existence (by human standards) of many birds of probable Latin American origin. Though these birds still spend the winter in Central and northern South America, they fly north in the spring to take advantage of the summer growing season and, yes, to breed. The "northern" case, representing an Ontario forest, shows the migrant breeding birds with local residents, and the "southern" case shows the birds with a variety of

local residents back in their main wintering area, a tropical rain forest. What is most sensational is how their physical appearance changes. For example, the scarlet tanager, which is red and black in the Ontario forest, is green and black in the tropics. Furthermore, when they are in the north, the breeding birds eat a great quantity of protein and are highly territorial. Back in their southern tropical rainforest environment, their diet often contains a high percentage of fruit and they may join mixed flocks of migrant and permanent resident species. Although the northern and southern environments are thousands of kilometres apart, they really are interrelated, because the disappearance of one would profoundly affect the bird life of the other.

From the illustration of this wonderful diversity, the displays turn to the second theme of the gallery, conservation. Conservation is an issue close to the hearts of the ROM biologists, The Outdoor Canada Fund, and hopefully most Museum visitors. And as the north/south exhibit demonstrates, conservation has as much to do with the environment as with the birds in it.

The history of the delicate passenger pigeon, which may have been the most abundant species of bird that ever lived, shows the consequences of overkill. Had they not been hunted to death, the passenger pigeon population might still number an incredible six billion birds. Indeed, at their peak in the early nineteenth century, passenger pigeon flocks were so huge that they blackened the skies for up to three days as they passed over a region.

On the other hand, when the wood duck was faced with extinction caused by overkill and the clearing for agriculture of trees in which they lived, governments stepped in and imposed hunting quotas. Concerned individuals erected poles with boxes in which the birds could nest. Now the wood duck is flourishing once again and in even larger areas than before the problems began.

Because acid rain has destroyed the aquatic life that forms their main diet, common loons remain threatened and require the constant vigilance of conservationists and the general public to ensure their survival as a species.

Another display case shows a variety of colourful birds still found in the wilds in various parts of the globe, from colourful cardinals and blue jays to the hardier native sparrows, robins, black birds, and pigeons. With the press

of a button, visitors can see the few sturdy non-native species —house sparrows, starlings, and feral pigeons—inhabiting urban environments in the world of 2040 if the current rate of depletion of the more colourful birds and their wild and natural habitats continues. The survival of only a few imported city-dwelling species would signal the ultimate in environmental destruction and should stand as a solemn reminder to act now to preserve our cherished wild heritage.

Above: The plumage of the tananger is a brilliant red and black when the bird is living in a northern Ontario forest but turns to green and black when the bird is back home in a rainforest in Central or South America.

The newest feature of the Gallery of Birds is the Long Point Marsh diorama, which simulates a vibrant coastal wetland on Lake Erie in early spring. In the marsh there is a typical mix of local breeding birds as well as transients en route to more northerly breeding grounds. Visitors stand under a gazebo similar to the type of lookout point enjoyed by birders at many sites along our rivers and lakes. However, the diorama offers a close-up view of sights and sounds of the many birds in the marsh that these creatures would never permit in real life.

In a small alcove beyond the diorama, there are two computers with interactive programs that allow visitors "to build" birds. After choosing a beak, they are given a number of options for feet and other body parts, and habitats. The programs ensure that the choices ultimately lead to a workable bird. Bird building is truly enjoyable and educational for people of all ages. However, it seems to attract children like a magnet, thereby often leaving accompanying adults out in the cold as interested spectators.

From personal experience I can suggest three ways for adults to overcome this situation. You can impose yourself on a child and suggest in a dictatorial fashion that this experience should be shared. Alternatively, you can suggest to young visitors that they march a few steps down the corridor to the Bat Cave (it's an imaginative educational experience too) and return to bird building later. Or you can come to the Museum on a Tuesday or Thursday evening when most visitors are adults and all good children are at home completing school assignments or getting ready for bed.

The reasons to protect the world's birds and their environments are issued loudly and clearly in The Outdoor Canada Fund (The Sportsmen's Shows) Gallery of Birds. Birds are among the most ancient, varied, and inspiring animals on Earth, and the demise of even a single species is a tragedy. ❦

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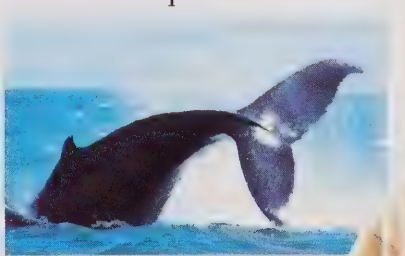

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The Battle of Lake Erie Tureens

Robert Barclay was a most unlikely trophy winner

By Donald Blake Webster

An honour in error may be the most appropriate description for the pair of very fine silver presentation tureens recently acquired by the Royal Ontario Museum. The tureens are inscribed to Robert Heriot Barclay, Royal Navy, honouring his services as commander of the British fleet at the Battle of Lake Erie, which took place 10 September 1813.

The Battle of Lake Erie, off Put-in-Bay, Ohio, was one of the most decisive and famous naval engagements of the War of 1812. In a hard-fought action with heavy casualties on both sides, Oliver Hazard Perry, United States Navy, commanding a fleet of nine American vessels, defeated a six-vessel British squadron commanded by Robert Barclay. Even with its flagship *Lawrence* out of action, the American fleet had more vessels with greater armament and crew strength, all of which ultimately decided the battle. The entire British squadron surrendered, and its survivors became prisoners of war. Perry, born in 1785, had never been in a naval battle before. For his victory he was promoted to captain and

earned legendary status.

Barclay, born in 1786, had seen his first naval action as a midshipman in HMS *Anson* against Bompard's French fleet in 1798. He then served in Nelson's *Victory*, was a lieutenant in HMS *Swiftsure* at the Battle of Trafalgar in 1805, and lost his left arm during another battle in 1809. He was subsequently posted to Halifax where he did sea-going duty until he was ordered to the Great Lakes in November 1812. He was promoted to commander in 1813, and appointed acting-commodore of the Lake Erie fleet by Captain Sir James Yeo.

In the aftermath of the Battle of Lake Erie, Perry, who was officially master-commandant and acting-commodore of the American fleet, personally paroled the severely wounded Barclay and other injured British officers and loaned them $1000 of his own money to cover their travelling expenses. He then had Barclay transported with his ship's doctor to British hands at Queenston, Upper Canada. There Barclay recovered sufficiently from his wounds to be able to return to England in late spring, 1814.

Like all British commanders who had been defeated in battle, Barclay faced a naval court-martial. It took place on 16 September 1814 at Portsmouth. He was completely exonerated. On learning how poorly armed, equipped, and manned Barclay's small fleet had been in the face of a far stronger enemy, yet how well it had performed, the court "did adjudge the said Captain Robert Heriot Barclay, his surviving officers, and men, to be most fully and honourably acquitted."

Even before the inquiry, the "Inhabitants of Quebec" subscribed 100 guineas "for the purchase of plate to be presented to Captain Barclay." Following the acquittal, the "Canada Merchants in London" subscribed an additional 400 guineas. The money was used to commission William Burwash of London to create the pair of large and handsome silver tureens. They were made and marked in early 1815.

Both tureens were engraved with the Barclay coat-of-arms and were inscribed to Barclay from the "Inhabitants of Quebec" and the "Canada Merchants in London," for "exalted Courage and heroic Valour."

PHOTOGRAPHY BY ROGER YIPP

These silver tureens were presented to Captain Robert Barclay by the "Canada Merchants in London" and by the "Inhabitants of Quebec" for his efforts in the Battle of Lake Erie on 10 September 1813. Ironically the "Inhabitants of Quebec" tureen has an inscription which reads, "Of Captain Barclay/ It must truly be said that/ Although he could not command Victory/He did more/He nobly deserved it."

Donald Webster is curator in charge of the Canadian Decorative Arts Department, ROM

COURTESY CANADIAN DECORATIVE ARTS DEPARTMENT, ROYAL ONTARIO MUSEUM

Because he was defeated in battle, Barclay had to face a navy court-martial. Although he was acquitted, real mysteries remain about his overall conduct as acting-commodore of the Lake Erie fleet

This watercolour of the Battle of Lake Erie by Robert Irvine is the only known existing picture of the battle created by a participant and eyewitness. In the centre of the painting, totally dismasted, is the British flagship *Detroit*. At the left, with one mast down, is *Queen Charlotte*, the second-largest British vessel, which was commanded by Irvine after the two senior officers were wounded. Behind the British vessels, with flag and commodore's pennant, is the American flagship *Niagara*. The vessel on the right, flying the American flag and battered with topmasts gone, is Perry's first flagship *Lawrence*.

The tureens are magnificent examples of late George III Regency silver, and as military presentation pieces they are virtually unique in that they commemorate a significant defeat rather than a victory. There are, however, some real mysteries about the events that prompted these presentations.

The individual subscribers are still unknown. Certainly the primary Montreal-centred export mercantile group with crucial interests in the Lake Erie and upper Great Lakes area was the North West Company. Before the War of 1812 the North West Company even had its own fleet of supply vessels on the lakes, including the *Caledonia* on Lake Erie, which was captured by the Americans in 1812 and added to Perry's fleet.

COURTESY METROPOLITAN TORONTO REFERENCE LIBRARY

Robert Heriot Barclay
(1785 - 1837)

Why should the North West Company, or more probably individual members of it, have made a presentation to Barclay, whose defeat resulted in the company's loss of control of the upper Great Lakes and the vital French and Ottawa rivers fur trade route? Probably, as the inscriptions state, it was just simple gratitude for Barclay's efforts. Defending British control of the upper lakes was, after all, defending the interests of the North West Company. It is unlikely, however, that the subscribers to the tureens knew that the heroic Barclay had also been the author of his own misfortune.

Barclay's court-martial considered only the circumstances and conduct of the Battle of Lake Erie itself. It did not, for some reason, examine the broader issue of Barclay's overall conduct as acting-commodore, which was questionable at best.

Perry's fleet, six of whose 11 vessels built at Presqu'ile (Erie), Pennsylvania, was completed by early July 1813. Until the end of July, however, Barclay's Lake Erie squadron had Perry's fleet blockaded, penned behind an underwater bar, and bottled-up in harbour at Erie. Barclay at that point enjoyed tenuous but uncontested naval control of the lake.

Then, on 29 July, the British blockade was abruptly withdrawn as Barclay's vessels sailed away. That gave Perry the opportunity he needed, working day and night, to lift and manhandle his largest vessels, which had been lightened to the condition of disarmed and empty hulls, across the shallows of the harbour bar and into Lake Erie.

When Barclay's squadron finally returned late in the morning of 4 August, Perry was still at work. The *Niagara* was just being lifted over the bar. The American flagship *Lawrence*, though already free, had not yet taken on ballast or heavy guns.

At that point, with Perry in such an exposed and vulnerable position, a British attack on 4 or 5 August could have been opposed only by Perry's small shallow-draft single-gun schooners. Barclay could probably have destroyed or at least disabled the entire American fleet; he had earlier spoken of his intention to do exactly that.

But there was no attack. Instead Barclay simply held offshore through much of 4 August and merely observed from a distance. Just the sight of Perry's fleet, successfully out of the harbour at Erie and loose on the lake, apparently prompted

Barclay to retire without a challenge. His squadron headed west to Fort Malden at Amherstburg, Upper Canada, there to wait for the fitting-out of the newly launched 19-gun *Detroit.*

The *Detroit* came too late. Though Barclay tactically made a good showing in the eventual battle of 10 September, he had effectively missed his chance when he simply abandoned the British strategic advantage five weeks earlier.

Why Barclay discontinued the blockade at Erie for those crucial six days was never explained either at the court-martial or later. Neither Barclay nor any of his surviving officers who were questioned volunteered any hint of having abandoned the blockade. In a perjured statement Barclay observed only that in early August

I cruised there [off Erie], still hoping that I should, at length, be reinforced, blockading the port of Presque' ile as closely as I could until I, one morning, saw the whole *of the Enemies force over the Bar and in a most formidable state of preparation.*

There was never any suggestion that this observation occurred upon the British squadron's return after a six-day absence, and so the court was never aware that Barclay had allowed Perry's fleet to escape from Erie harbour.

It is possible that weather did force the British short-term departure from Erie. However, there is no reasonable explanation as to why Barclay did not send any of his five vessels back to resume station. All the stories about the weather, about supply escort duties, and even about shot damage from an American schooner to Barclay's then largest vessel, the *Queen Charlotte,* do not provide valid answers to this most crucial question.

Barclay was recorded as commenting that he, and probably the other officers as well, simply could not believe that Perry would ever manage to get his two largest and deepest-draft vessels, the *Lawrence* and the *Niagara,* past the underwater bar at Erie. With his assessment likely coloured by a then rather typical British disdain towards the ex-colonials, it appears that Barclay was supremely over-confident, to the point of feeling quite safe in leaving the blockade.

There was perhaps an added distraction that can be gleaned from the delicately but rather bitterly written wartime memoirs of Amelia Ryerse Harris published in *Loyalist Narratives from Upper Canada.*

There was a pretty widow of a field officer at Amherstburgh who was very anxious to go to Toronto. Capt. Barclay offered Her a passage in His ship and brought her to [Port] Ryerse & then escorted her to Dr. Rolph's, His fleet remaining at anchor at Ryerse while He & some other of His officers spent a day at the Rolphs'. The following day [4 August] when they came in sight of Erie, they saw all the American fleet riding safely at anchor outside of the Bar.

At a dinner on 3 August held in his honour by Dr. Thomas Rolph, Barclay responded to a toast with

I expect to find the Yankee brigs hard and fast on the bar at Erie when I return, in which predicament it will be but a small job to destroy them.

Whatever his reasons, whether a critical underestimation of Perry or a dalliance with the pretty widow, or perhaps even a combination of the two, the fact remains that Barclay abandoned his blockade, went partying, and allowed Perry to get his vessels out of Erie harbour.

Barclay's loss of the Battle of Lake Erie, with the first-ever surrender of an entire British naval squadron, generated discussion in both Houses of Parliament, and left a stain on his career in spite of his acquittal. His service under Governor General Sir George Prevost, who was recalled under charges in 1815, was perhaps another strike against him. Prevost died before his court-martial.

Virtually crippled as a result of wounds suffered in the Battle of Lake Erie, Robert Barclay was pensioned on half-pay. He petitioned the Admiralty for a posting again in 1822. Probably because of his 1814 acquittal he was grudgingly given command of a mortar-vessel in the Mediterranean for six months in 1824, after which he was finally promoted to captain. He then remained in retirement on captain's half-pay until his death in 1837.

The magnificent presentation tureens remained in the Barclay family in Scotland until 1989, when they were consigned to auction at Sotheby's, London. They were then purchased by the Royal Ontario Museum with the generous assistance of the Costello Trust and a grant from the Cultural Property Review Board, Canadian Department of Communications. ✤

The first-ever surrender of an entire British naval squadron was discussed in both Houses of Parliament, thereby leaving Barclay's career permanently stained in spite of his acquittal

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We Talk, You Listen

ACCORDING TO DONALD SMITH IN THE article "Now We Talk—You Listen" (*Rotunda*, Volume 23 no. 2), because of the contributions of Native people during the Second World War, Native people can be thankful that they are being listened to.

Mr. Smith bases his assertion on the fact that the Native population in Toronto is "in the tens of thousands" and that Native people "do not have to give up their cultural identity and assimilate."

In fact the cultural identity, and future of the Native people of Canada is still being determined by whites and by white standards. Native people are not asked by the government, or institutions, or society what they want their future to be.

Native peoples are told that there are affirmative action programs to assist them in entering any facet of Canadian life they choose. However, in the federal government, according to just released figures by the Treasury Board, Native people make up just 1.8 per cent of employees. This figure is lower than the goal of 2.6 per cent.

In figures released by the Canadian Museum of Civilization 1.2 per cent of employees in that institution are Native. That figure has since dropped because some of the Native employees have left. There was, at the beginning of 1990, only one Native curator and one Native conservator working full-time.

If Native people are not in a position to interpret or preserve their heritage, and are not permitted to contribute meaningfully to their future, they have gained little since the 1939 conference.

Now, Native leaders may "speak

for themselves without intermediaries," and Grey Owl "might have applauded," but again, he was just one white man speaking for the Indian, and still, no one is listening.

ANNEKE DUBASH
OTTAWA, ONTARIO

A Treasure in Stained Glass

I'VE WORKED AT THE HOSPITAL FOR Sick Children for six years and knew virtually nothing about the stained-glass window until reading "Christ Healing the Sick Child: A Treasure in Stained Glass" (*Rotunda*, Volume 23, no. 3). Shirley Ann Brown's piece provides excellent and much-needed historical information. The present generation of Sick Kids staff are in your debt.

Following your lead, we shall carry a feature on art at Sick Kids in the summer issue of our quarterly magazine, *Kaleidoscope*. Before we focus all our attention on the new patient care centre, we need to look around at the building we now occupy, and take time to enjoy the many gifts we have received.

I note with concern the comments about the present placement of one panel that is "installed ...where there is risk of damage from chairs and other objects placed against it." Thank you for bringing this to our attention.

CLAUDIA ANDERSON
DIRECTOR OF PUBLIC AFFAIRS
THE HOSPITAL FOR SICK CHILDREN
TORONTO, ONTARIO

More Reading for *Rotunda* readers

I ENJOY EVERY ISSUE OF *ROTUNDA* AND would like to make a suggestion for an additional feature that would be useful for your readers. Would it be possible to add a reading list so that readers could follow up on items of interest?

H. E. KOMADOWSKI
LETHBRIDGE, ALBERTA

This is a good suggestion and we will start providing reading lists with the summer (May) 1991 issue.

We Made Errors

In the book review of Wonderful Life:

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The Burgess Shale and the Nature of History (Rotunda *Volume 23, no.2), the second paragraph should read: On 1 October 1913 Walcott "called on" Professors William A. Parks and Thomas L. Walker, the first directors of the Royal Ontario Museums of Palaeontology and Mineralogy, respectively, and on Sir Edmund Walker.*

In the article "The Samuel European Galleries" (Rotunda, *Volume 23, no.3) Charles Trick Currelly is described as the first director of the ROM. Dr. Loris Russell, now curator emeritus at the ROM, corrected the* Globe and Mail *for making the same mistake in 1969: "Of the original five directors, all but Dr. Currelly had heavy loads of teaching and administration in the university. Only Dr. Currelly had the time, and perhaps the inclination, to make numerous public appearances and give interviews, extolling the glories of his museum. In the press and on the platform he was almost always referred to as the Director of the Royal Ontario Museum, and so the legend grew up that Dr. Currelly was the head man at the Museum. This was very annoying to some other directors, but there seemed to be nothing that they could do about it."*

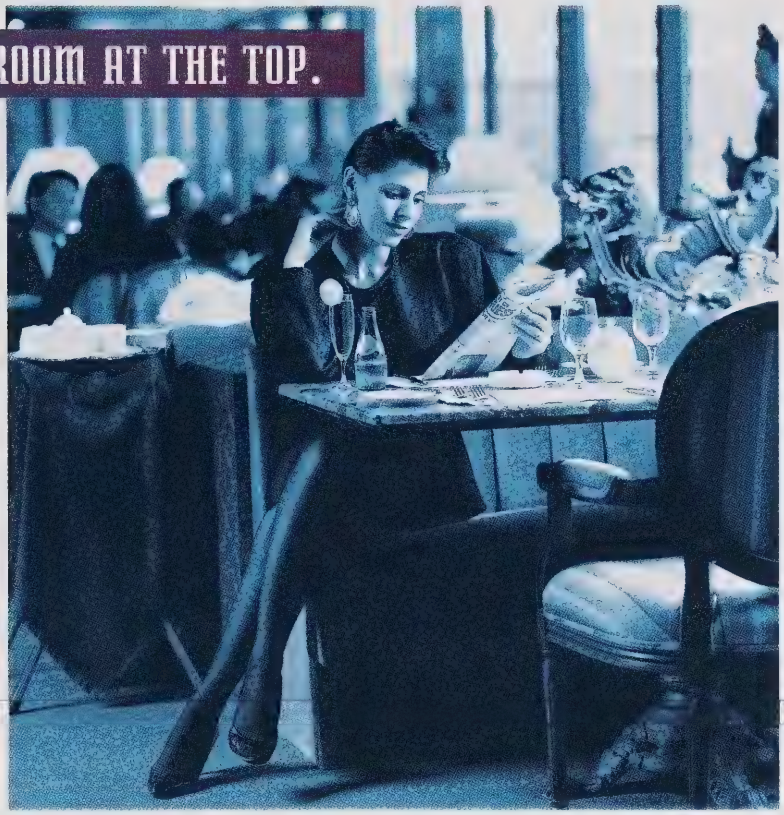
Don't Shoot the Messenger

It's always a pleasure to boast about something special that makes your country distinct. The fact that Canada taxes reading material is not only a disgrace, it is an embarassment. Many people are protesting the addition of GST to magazine subscriptions by refusing to pay that portion of the subscription costs. However, whether or not publishers receive tax payments for paid subscriptions, they must still pay the tax. Such protests don't move the government, rather they hurt the publications. And in tough economic times, the pain is deeply felt.

The Canadian Magazine Publishers Association, this country's largest magazine lobby, and other publishing organizations have strongly expressed their concerns to the federal government. Please add your voice to ours.

SANDRA SHAUL
EXECUTIVE EDITOR
ROTUNDA

THERE'S ROOM AT THE TOP.



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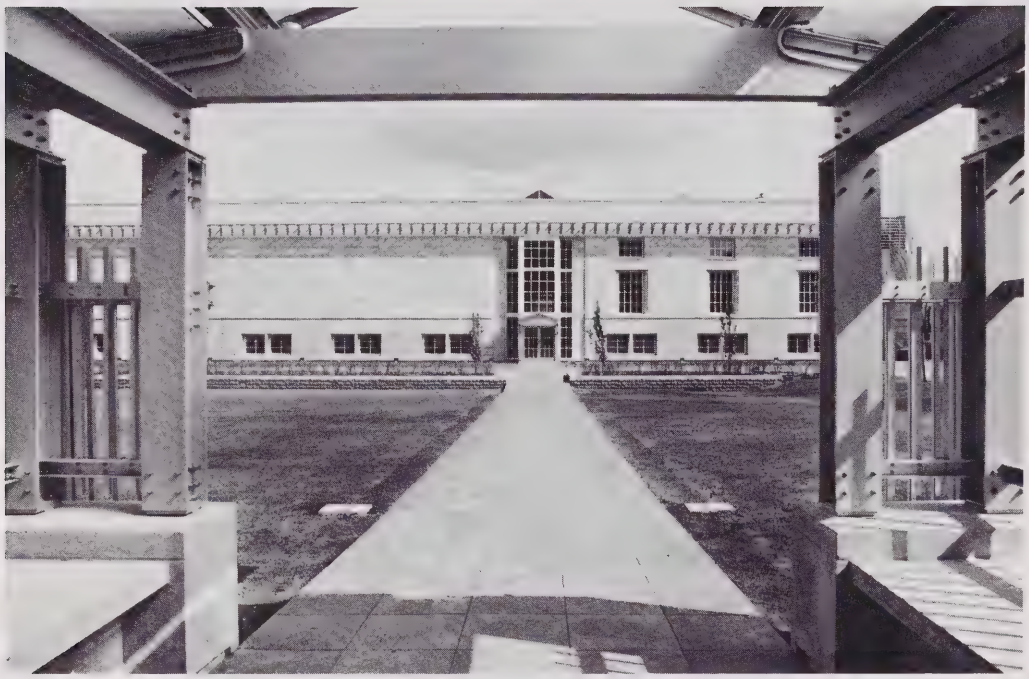

View of the north elevation through the entrance gate of the Canadian Centre for Architecture, Montreal, built by Peter Rose.

The Canadian Centre for Architecture

TO BEGIN WITH, THE TAXI DRIVER hadn't heard of the Canadian Centre for Architecture. Although I assured him the entrance was at 1920, rue Baile, he insisted that I really wanted the Musée des Beaux Arts on Sherbrooke Street. Montreal cabbies are notoriously vague about their city's landmarks, but it seemed significant that, almost two years after the museum opened to national and international acclaim, the CCA remains something of a trade secret.

On the surface, it's hard to see why. The new museum occupies a prime piece of historic Montreal real estate, a 1.2-hectare site that extends north and south of René Lévesque Boulevard, between rue Saint Marc and rue du Fort. The symbolic centre of the complex is Shaughnessy House, an 1874 grey-stone mansion that sums up an important chapter in the city's social and architectural history. Around it, architect Peter Rose has wrapped a luxurious modern museum, stocked with a king's ransom in architectural artifacts ranging from antique building blocks to working tools, from fifteenth-century drawings to early photographs, from rare treatises to the account books of nineteenth-century Canadian architects. Artist Melvin Charney's sculpture garden, which overlooks the busy Autoroute Ville Marie at the north end of the complex, challenges motorists and museum-goers alike with his witty sculptural references to some of our architectural obsessions. (More quietly, the garden's thoughtful plantings recapitulate the horticultural history of the region.)

One of only a handful of architectural museums in the world, and arguably the richest in terms of holdings, the Canadian Centre for Architecture was conceived, delivered, and reared by the formidable Phyllis Lambert. It's estimated that she has spent more than $150 million on the CCA—and it shows.

So why does this ambitious and uniquely generous project seem almost to glory in its discreet profile? Part of the answer lies in the nature of the beast. Museums devoted to architecture are by definition at one remove from "the real thing." They display representations of buildings rather than the buildings themselves, and their exhibitions can seem both demandingly abstract and bewilderingly fine-featured to the general public. (The fragility of works on paper—the bulk of the

CCA's collection—poses another problem for the non-specialist museum-goer. Because conservators advise against their being exhibited for longer than three months at a stretch, the CCA will have no permanent exhibitions.)

Which is not to say that the public can't be interested in their built environment, or that the CCA's concerns are exclusively scholarly and professional. No one doubts Phyllis Lambert's sincerity when she writes that the CCA aims to create a public discourse about the quality of urban life, and it's clear that most of the elements for just such an exciting conversation are already in place. But Lambert's uncompromising standards and impeccable taste have created a treasure trove that is a touch forbidding—so far.

The CCA's introspective aspect is apparent from the beginning. Constrained by a truly contemporary location (it is hemmed in on two sides by the autoroute's exit ramps) and respect for Shaughnessy House, the CCA turns its back on René Lévesque Boulevard and ushers its visitors in on the rue Baile via a modestly off-centre, almost playful, trellised entrance. There is no identifying sign as you enter the property, just a long swath of lawn and, behind it, Peter Rose's starkly elegant greystone building.

Walk around the new, U-shaped building as it enfolds Shaughnessy House, and you'll see why the *Globe and Mail*'s Stephen Godfrey calls it "a building about building." Its protective embrace of the Second Empire mansion suggests Lambert's long commitment to preservation: she bought the house in 1974 to save it from demolition, a year after she founded Heritage Montreal.

Subtly, and without ever ceasing to be a thoroughly modern building, Peter Rose's museum echoes and partners the old house. Both are made of Montreal's characteristic building material, Trenton limestone, and Rose translates some of the older building's traditional elements into a modern vernacular—the squared string course on Shaughnessy House reappears as a smoothly rounded roll that softens the new building's spare geometry, the curve of Shaughnessy House's conservatory is repeated in the new Special Collections Study, while the projecting bays of the old house are matched by the thrust of the new theatre. The silvery shimmer of Rose's anodized aluminum trim echoes the mansion's florid filigree cresting; more boldly, Rose underlines the older house's elaborate sculpted cornice with his own graphically bolted aluminum version.

Inside, in the museum's surprisingly intimate rooms, furnished in maple, aluminum, and glass, the dialogue between past and present continues. The passageway between the museum and the meticulously restored mansion, which houses administrative offices and a members' club, is properly dramatic, a movement to ornateness from the equally luxurious functionalism of Peter Rose's building. But even the views

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from the windows offer constant, deliberate juxtapositions—the intricacies of the Shaughnessy House quoins and keystones, a green highway sign to Dorval Airport, a checkerboard of paving stones and grass.

Just as the CCA buildings illustrate the rich palimpsest of our built environment, so too do its collections and exhibitions. Certainly the quality and quantity of the collections—20,000 prints and drawings, almost 50,000 photographs, archives that include more than a quarter million items, and a full-scale library—are more than impressive. A visitor to the CCA sees only the tiniest tip of an iceberg that includes state-of-the-art systems of electronic access, conservation, and preservation, as well as an entire wing for visiting scholars.

All this says as much about Phyllis Lambert's admirably focused passion as it does about her deep pockets. But if that passion is really to result in a greater architectural literacy for the public, then the CCA needs to become more outgoing and to shed something of its intimidating aspect. Exhibitions (which currently include examinations of bank architecture, architectural toys, and the Chicago architect Myron Goldsmith) could offer more context and explanation without sacrificing intellectual rigour. A permanent introductory exhibit (which need not feature fragile documents) about some of the basics of architectural grammar would be welcome and welcoming. Film and lecture series designed for the curious public would be ideally suited to the CCA's premises and mandate. Most important perhaps, the CCA needs an education director to mastermind what is only a shift of emphasis—but an important one. Phyllis Lambert's magnificent gift to Canada and the world is too precious to remain an insider's secret.

KATHERINE ASHENBURG
Katherine Ashenburg is arts and books editor of the Globe and Mail

Atlases, Gardening, Asia, Whales

As far as most atlases are concerned, people might just as well have gone on believing that the Earth is flat. That's why the new volume of the ***Historical Atlas of Canada*** (University of Toronto Press, $95) is so important. Its standard of cartography is very high, but the book is more than a collection of one-dimensional images. It's a wonderfully complex and seductive arrangement of maps, charts, tables, graphs, and other graphics, which add up to a particularly useful reference work, not only for the study of political history but for the more elusive kinds as well—social history, labour history, family history, and so on.

This volume, the second to appear since the project began to bear fruit in 1987 (although it is volume III in the series), is subtitled *Addressing the Twentieth Century.* It covers the vital 70 years beginning in 1891—the period when the country assumed its present shape on the map and when the demographic whirlwind that has created the kind of pluralistic urban society we know today was well underway. It's actually rather difficult to describe all the fascinating stuff the new atlas contains or the way it operates on several levels simultaneously. To point out that there are architectural views of particular streetscapes, or information about interlocking directorates among Bay Street businessmen on the eve of the First World War, or imaginative charts showing the result, riding by riding, of Newfoundland's two Confederation referenda in 1948 suggests that the book is a jumble of information. But in fact the logic of the arrangement, which is both thematic and chronological, and the cleverness of the visual presentation, which integrates cartography with the graphic design as a whole, mean that it is nothing of the kind.

It was obvious from the first that the *Historical Atlas* would be another of those publishing mega-projects, like the beleaguered *Dictionary of Canadian Biography* or the two editions of *The Canadian Encyclopedia,* with which, against ever-worsening odds, Canada has been blessed in recent years. This new instalment, edited by Donald Kerr and Deryck W. Holdsworth, in collaboration with the cartographer Geoffrey J. Matthews, can only consolidate the gain. It is not simply an important work on Canada, it expands our understanding of what atlases, as a genre, can accomplish.

Turning from atlases, one of the curiosities of the age is the great revival of interest in gardens, particularly formal gardens. The number of magazines and journals, both popular and scholarly, devoted to this field has increased substantially in recent years. In Toronto there is even a rather large and well-appointed (and year-round) bookstore given over to gardening books exclusively.

Amid all this information one would search a long time to find a more useful or more enjoyable reference than ***The Canadian Gardener: A Guide to Gardening in Canada*** by Marjorie Harris (Random House, $34.95). It's not so much that this book is many things to many people; it's that it is as useful to the novice as to the ambitious lifelong practitioner, for it is an especially well-thought-out book of its type. Here, in abundant detail and accessible prose, is all the basic information about plants and procedures, arranged according to climatic region. Harris travelled across the country with a photographer, Tim Saunders, documenting particularly interesting or imaginative gardens, and the resulting images, scattered throughout, serve as a rich bank of ideas. What's more, there is Harris's own text, which speaks to the hidden aspirations of many of us when it describes how she discovered her interest in gardening 25 years ago and how it has changed and grown. She writes that she began with "an intellectual vision based solely on art books. From these books and visits to museums, I knew about Persian gardens, Italian Renaissance parterres, and Impressionist visions. I learned the long and hard way. Fantasies were replaced by reality."

Which is not to denigrate those idealized gardens of the past, which still put down a sort of imaginative undercoat for most of us. ***The Italian Renaissance Garden*** by Claudia Lazzaro (Yale University Press, $55) is a fine example, showing clearly where our notions of garden planning, and our very idea of what gardens are for, come from. It's also an uncommonly handsome book, well balanced in its use of both archival images and contemporary ones. Less colourful but offering more food for thought is ***The Meaning of Gardens*** (MIT Press, $35), an anthology of articles edited by Mark Francis and Randolph T. Hester, Jr. They and two dozen other scholars examine the garden throughout history from various points of

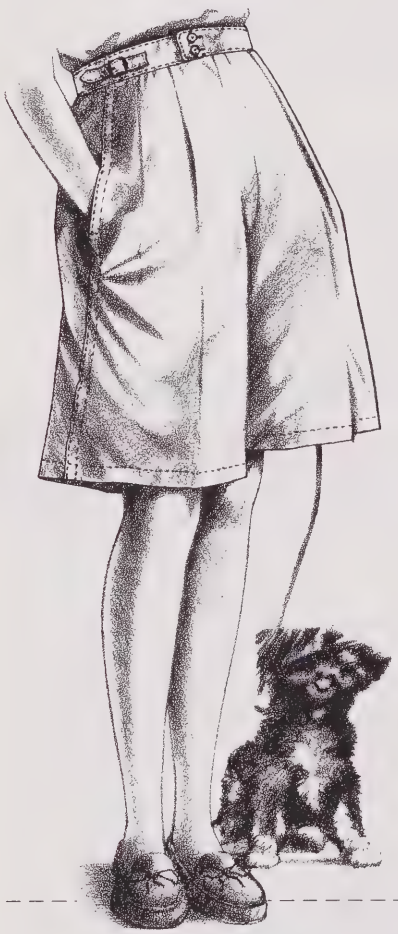
view—as an instrument of religion, for example, as well as an engine of culture. The book is particularly useful in freeing us from our European bias and showing how our own approaches to the garden fit into the multi-cultural pattern.

UNLIKE WORTHWHILE CANADIAN books on gardening, Canadian books on China have been numerous almost to a fault. In the past, most were by or about missionaries, while in more recent times, journalists have predominated. The situation this publishing season, however, is a little different, as coincidence has resulted in the almost simultaneous appearance of three books about Shanghai.

Congee and Peanut Butter (Oberon Press, $12.95 paper, $25.95 cloth) is a further instalment of autobiography by Elfreida Reid, who tells of her imprisonment by the Japanese after the city was overrun 50 years ago. It makes a curious companion to a far more vivid work, ***Shanghai 1949*** (Summerhill Press, $26.95) by Sam Tata, the celebrated photographer. Tata, a Shanghai native, used his camera to record how that most Western (and most cosmopolitan) of Chinese cities changed when the People's Liberation Army of Mao Zedong took it over. The third Shanghai book is ***The Wise Traveller*** (Oberon, $12.95 paper, $25.95 cloth) by Margaret MacLean, a re-edited version of an obscure text originally published in Tokyo in 1906 under the title *Chinese Ladies at Home.* MacLean (1871-1931) was the daughter of the Canadian trade commissioner to Japan. In 1905, she spent some time in China, most of it in Shanghai. This was in the run-up to Shanghai's heyday as an international free port, and the Bund struck her, as it struck most visitors, as being "a veritable piece of London." She was pithy in her observations: "What the foreigners disapprove of they say is Chinese; what the Chinese disapprove of is foreign." In 1915 MacLean joined the ROM, where she founded the education program.

Another kind of insight into China—the contemporary one, not the historical—is a by-product of a quite beautiful book entitled ***My Tibet*** (University of California Press, $35) by His Holiness the Fourteenth Dalai Lama and Galen Rowell, an American nature photographer. This seemingly unlikely collaboration can actually be explained easily. To the rest of the world, the very word Tibet had long carried associations of exotic inaccessibility. Since the Chinese invasion of 1950, this image has been reinforced by political reality: surprisingly few Westerners have ever been there even to record the scenery, much less accurately gauge the level of Chinese repression.

The Dalai Lama, who has been in exile in India these past 40 years, has long lamented the destruction of Tibetan culture while preaching a kind of Gandhi-like passive resistance as the best means of dealing



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with the Chinese—as well as a demonstrated willingness to compromise, as when he sees no reason why the Chinese should not go on conducting Tibet's purely external affairs. For fear of offending Beijing, few Western nations will give him the respect he deserves (Prime Minister Brian Mulroney snubbed him during the most recent visit to Canada, last October). Since being awarded the Nobel Peace Prize in 1989, however, the Dalai Lama has been more prominent than ever, even publishing an autobiography recently. The six essays in *My Tibet* are part of the same PR initiative, telling in a simple and appealing way the story of his exile and of what has taken place in Tibet during the past few years. Some of the pieces are secular while others, particularly the one entitled "The Meaning of Pilgrimage," are more explicitly texts in Buddhism. Rowell's photographs are of the highest quality considered both as commercial art and as information. A worthwhile book.

I SHOULDN'T END WITHOUT MENTIONing two books on the subject of natural science by Canadian writers. ***Seasons of the Whale*** (Nimbus, $27.95) by Erich Hoyt, the author of a couple of previous works on whales, is based on close (mostly underwater) observation of whale habits in the North Atlantic. ***Portraits of the Rainforest*** by Adrian Forsyth (Camden House, $29.95) is a collection of well-illustrated essays arising out of the author's long study of conditions from Costa Rica to Brazil. He sees the rainforest as the highest stage in ecological evolution—the single most complex environment on Earth—which is why the threats to it are all the more heartbreaking. Especially interesting is his piece on the medicinal role of many of the plant species to be found there.

DOUGLAS FETHERLING
Douglas Fetherling is literary editor of the Kingston Whig-Standard *and a cultural historian*

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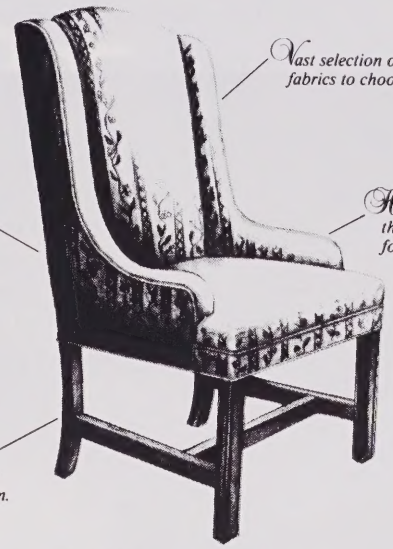
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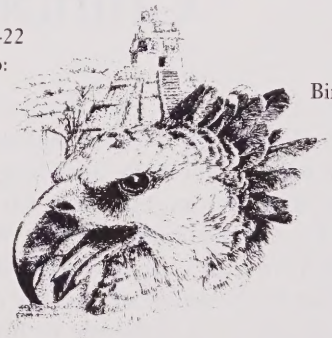

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